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ABSTRACT

The 1993-95 Health Personnel Resource Plan (HPRP) for the state of Washington identifies health professions shortages and suggests activities to alleviate these shortages. Its components are as follows: assessment of health personnel supply and requirements; cooperation among governments and organizations; service delivery by a mix of providers; community efforts; recruitment and retention; an adequate financial base; subsidization of malpractice insurance costs; efforts to reduce health personnel isolation; alternative training sites; nursing articulation; rural training track for medical students; geographic distribution of residency training; and telecommunications initiatives for placebound health professionals. The HPRP summarizes supply, demand, distribution, and requirement data for eight health care professions and reports that a distribution problem creates shortages of primary care providers in parts of Washington. These shortages are geographic and population specific, with most physician shortages occurring in rural counties. The HPRP gives priority to agency and institutional activities that increase the access of rural, urban underserved, and minority target populations to health care providers. It provides fiscal requirements for implementation of these activities: assessment, recruitment and retention, minimize regulatory impact, cultural competency of health personnel, geographic distribution of health providers, and educational data collection and analysis. Appendixes include a discussion of the 1992 Education Inventory. (YLB)

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ED 366 817

HEALTH PERSONNEL RESOURCE PLAN

1993-95 Biennium

Submitted by

Washington State Department of Health
Washington State Higher Education Coordinating Board
Washington State Department of Social and Health Services
Washington State Board for Community and Technical Colleges
Washington State Superintendent of Public Instruction

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The Health Personnel Resource Plan
is a Plan addressing shortages
in the following professions:

Physician and Surgeons
Osteopathic Physician and Surgeons
Naturopathic Doctors
Physician Assistants/Osteopathic Physician Assistants
Advanced Registered Nurse Practitioners
Registered Nurses
Licensed Practical Nurses
Midwives

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FOREWORD

FOREWORD

For years the Legislature has been concerned that certain health care professions are in short supply. The Health Personnel Resource Plan was established by the Legislature in 1991 to identify health professions shortages and to develop comprehensive solutions. This Plan creates statewide comprehensive policies to identify health professions personnel shortages and to design and implement activities to alleviate those shortages. The initial 1993 - 95 Plan was submitted to the Governor in September 1992 and to the Legislature in December 1992. It will be updated in July of subsequent even-numbered years.

The 1993 - 95 Plan lays the groundwork for a continuous process. It begins to determine the requirements for health care providers in targeted areas. It discusses the need to review the laws and policies impeding access to health careers and health care providers. It identifies educational policies regarding health career tracks and recommends changes. The recommendations are all in the context of increasing the supply and improving the distribution of health care personnel.

The data developed for health personnel supply and requirements determinations is incomplete. The database includes responses from about 80% of the providers survey in 1991 and 1992; a higher response rate is needed for a full picture. By September 1993, all health care professions will be surveyed, and the result will be entered irto the database. The database will be continually updated with data obtained through the health provider license renewal process.

Three Plan elements: (1) an analysis of the training needs of long-term care personnel; (2) a description of the linguisitic and cultural training needs of foreign graduates; and (3) a plan for training multi-skilled personnel, are deferred to the 1995 - 97 Plan.

The 1993 - 95 Plan was drafted around the medical model of health care. The Statutory Committee strongly feels that health maintainance and preventive care activities need a cornerstone of primary care. Data collected under the 1993 - 95 Plan will lay the groundwork for inclusion of preventive strategies in the 1995 - 97 Plan. Implementation of preventive strategies can affect requirements for health care providers in different areas of the state.

Readers should be noted that the 1993 - 95 Plan is not only the result of staff work. In large part it is the product of thousands of person-hours contributed by health and other professionals who provided advice through the Community and Education Subcommittees.

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ACKNOWLEDGEMENTS

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Moses Lake Community Health Center
N.E.W. Health Program
Okanogan Farmworkers Clinic
Pike Market Medical Clinic
Pioneer Square Clinic
Puget Sound Neighborhood Health Centers
Sea Mar Community Health Center
Seattle Indian Health Board
Southwest Washington Health District
Spokane Urban Indian Health Services
West Coast Health Care Consortium
Yakima Neighborhood Health Services
Yakima Valley Farmworkers Clinic
Whatcom Opportunity Council

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

BACKGROUND

For years the Legislature has been concerned that certain health care professions are in short supply. The Health Personnel Resource Plan was established by the Legislature in 1991 to identify health professions shortages and to develop comprehensive solutions. This Plan creates statewide comprehensive policies to identify health professions personnel shortages and to design and implement activities to alleviate those shortages. The initial 1993 - 95 Plan was submitted to the Governor in September 1992 and to the Legislature in December 1992. It will be updated in July of subsequent even-numbered years.

Five general elements were reviewed and analyzed in the development of the Plan:

- current and projected supply of and requirements for health care professionals across the state;
- regulation of health care professionals to identify regulatory impediments to supply increases and proper distribution;
- state policies on the provision of health care services to identify changes to positively effect personnel shortages;
- state programs which support community recruitment and retention efforts; and
- educational policies and guidelines on health career tracks to identify changes to positively effect student entrance to or completion of these tracks.

There are five state agencies represented on a Statutory Committee charged with the development of the HPRP. These agencies are the Department of Health (DOH), the Higher Education Coordinating Board (HECB), the Department of Social and Health Services (DSHS), the State Board of Community and Technical Colleges (SBCTC), and the Office of Superintendent of Public Instruction (OSPI). The Department of Health served as the lead agency for administrative purposes, and the HECB coordinated educational issues.

In September of 1991, the heads of these agencies met to discuss the content of the 1993 - 95 Plan. The agency heads decided that because of financial and time constraints, the Plan would initially include only eight professions identified by the Statutory Committee as primary and maternity care providers. The health professions included are:

- advanced registered nurse practitioners
- licensed practical nurses
- midwives
- naturopathic doctors
- osteopathic physician and surgeons
- physician assistants/osteopathic physician assistants
- physician and surgeons
- registered nurses

While analysis of these professions encompassed all the individuals licensed to practice, the Plan focused on the role of practitioners who specifically provide primary or maternity care. The 1995 - 97 Plan will address health professional shortages in the balance of the regulated health professions, as well as non-regulated health provider occupations.

In addition, the agencies determined that the Statutory Committee would provide oversight for Plan development. Two subcommittees were formed to provide topical advice to the Committee. The two subcommittees were the Community and the Education Subcommittees. The Statutory Committee and subcommittees met at least monthly throughout the last half of FY 1992.

Due to financial limitations, only two policy staff worked full-time on the Plan, along with two half-time staff support. One policy and one half-time staff support person worked at the Department of Health on program, policy, regulation, and health personnel supply issues. One policy and one half-time staff support person worked to develop and coordinate the educational issues at the HECB. Additional staff resources worked part-time on Plan development from the DOH's Office of Health Services Planning and Operations Support and the Office of Community Health.

Some Plan elements in the program, policy, and educational areas, have been either addressed minimally in the 1993 - 95 Plan, or have been deferred to the 1995 - 97 Plan due to time and financial constraints. These elements are identified in the section below.

1993 - 95 PLAN DEVELOPMENT PROCESS

The Statutory Committee oversaw and reviewed all activities undertaken in 1993 - 95 Plan development. The Community Subcommittee provided advice to the staff and the Statutory Committee on: supply and requirements determination; professional regulation; policy, program, and reimbursement; and health professions recruitment and retention. Its membership included representatives of professional associations, non-profit organizations, education and training institutions, health provider employers, private citizens, and health provider professionals.

The Education Subcommittee provided advice to the staff and the Statutory Committee on: health profession education and training;

(including rural training issues); loan repayment and scholarship programs; mid-level health professional training; student recruitment; nursing articulation and shortage; and distance-learning programs. Its membership included representatives of community colleges, higher education institutions, health provider employers, private citizens, and education and training professionals.

Internal agency workgroups at DOH and HECB were established to provide advice and assistance to the staff working with the health personnel policy and program issues. Ad hoc agency and inter-agency work groups provided specific technical advice in the areas of health professions supply surveys, health professions requirements and shortage determinations, database development and operations, and general technical plan development.

1993 - 95 PLAN CONTENT

The following are the components of the 1993 - 95 Plan. Recommendations identified by the Statutory Committee for each component are included.

1. ASSESSMENT OF HEALTH PERSONNEL SUPPLY AND REQUIREMENTS

The Statutory Committee will enhance the state's assessment of health personnel supply, distribution, need and demand through the establishment of a statewide health personnel database.

Recommendations

- Continue Plan database operation and development.
- Expand database to include all regulated and select non-regulated health professions.
- Provide analysis of the supply, distribution, and requirements for health personnel.
- Develop and refine definitions of sub-county primary care service areas.
- Develop and implement criteria for determination of professional and geographic area shortages.
- Provide technical assistance to communities for shortage determinations and small-area analysis of health provider needs.

2. COOPERATION BETWEEN THE STATE AND FEDERAL GOVERNMENTS, AND WITH OTHER ORGANIZATIONS AND ENTITIES

In implementing the HPRP, the state should establish a framework for cooperation among state, federal, and tribal governments, state and regional organizations, health services providers, local communities, and federal and state personnel development programs.

Recommendations

- Maintain and expand activities of both Washington Area Health Education Centers (AHECs) including Community Health Service Development Projects, health provider and employer information distribution, and recruitment and retention.
- Establish the Office of Rural Health in statute.
- Provide coordination, focus, and a framework for local, state, tribal, and federal health personnel development activities.
- Establish representative advisory committees to provide advice to the Statutory Committee on all aspects of on-going Plan development and implementation.
- Coordinate activities and opportunities to promote services to rural, urban underserved, and minority populations.

3. PRIMARY AND MATERNITY CARE SERVICES DELIVERY BY A MIX OF HEALTH PERSONNEL PROVIDERS

Primary and maternity care services can be delivered by a mix of providers. These include medical and osteopathic physicians, naturopathic physicians, midwives, advanced registered nurse practitioners, physician assistants. Other health personnel are involved as appropriate to their training and scope of practice and with interdisciplinary collaboration.

Recommendations

- Maintain and expand efforts involved in training, recruitment, and retention of all levels of primary care providers.
- Expand health professional loan repayment and scholarship program.
- Review agency reimbursement policies and provider scopes of practice for consistency with policy and statute.
- Promote efforts to develop interdisciplinary collaboration among health providers both during training and in the field.

- Provide support for Washington to become a "sending" state in the Western Interstate Commission on Higher Education (WICHE) Osteopathic Physician Program.

- Develop and implement marketing and recruitment strategies to recruit primary care health providers to Washington state.

4. COMMUNITY EFFORTS IN DEVELOPING ADEQUATE HEALTH PERSONNEL SUPPLY

The state should support the development and implementation of regional and community efforts to assure an adequate supply of health personnel.

Recommendations

- Provide technical assistance and funding to communities establishing Community Health Services Development Projects and other recruitment and retention programs.

- Provide technical assistance to rural communities to develop innovative efforts to address health system problems.

- Provide assistance to communities to fund student training for full-time students who agree to serve in those communities.

- Support efforts of non-profit organizations and communities to develop and maintain data regarding individuals seeking employment and health providers seeking employees in the health care field.

5. RECRUITMENT EFFORTS TO RESPOND TO TARGET POPULATION NEEDS

The state should support recruitment efforts for student training to become health care personnel. A primary effort should be the development and implementation of specific recruitment strategies for minority and under-represented target populations, health services and health personnel needs in rural and urban under-served areas.

Recommendations

- Support and expand development and implementation of specific recruitment strategies for identified target populations.

- Promote access to financial and other assistance to target group individuals for entry into and completion of health career education tracks.

- Promote mentoring programs and clinical training opportunities in community and migrant health centers.

- Identify and development programs to assure, culturally and linguistically competent health providers.

- Promote the use of community and migrant health centers for clinical training and career awareness.

- Develop definitions and identification of target population groups.

6. ASSURING A FINANCIAL BASE FOR HEALTH SERVICES

The state should assure an adequate financial base to support the provision of health care services as outlined in the Plan, particularly in rural and urban-underserved areas. This is essential for the appropriate and adequate distribution of health care personnel across the state, and for serving target area populations.

Recommendations

- Subsidize cost of malpractice insurance premiums for health care providers practicing in rural and urban underserved areas.

- Implement health care provider practice start-up subsidy program for providers agreeing to practice in designated shortage areas.

7. JOINT STRATEGIES FOR RECRUITMENT AND RETENTION

The state should develop and support a wide range of strategies for health professions recruitment and retention. Each entity involved needs to be aware of their role in the process in relation to others, and of the overall recruitment and retention strategy.

Recommendations

- Provide health career interventions across the educational continuum, targeting youth, undergraduates, second career adults, underrepresented groups, and rural and urban underserved target populations.

- Expand existing public and private non-profit recruitment and retention efforts.

- Assist communities in identifying grants and other financial assistance to support recruitment and retention activities.

- Increase funding for health professional loan repayment and scholarship program.
- Provide technical assistance to rural communities to maintain the infrastructure of rural health delivery systems.
- Support and expand current locum tenens and malpractice insurance subsidy programs.
- Support recruitment and retention activities of rural and underserved community clinics.
- Develop and support data linkages to coordinate information dissemination to primary and maternity providers.

8. REIMBURSEMENT AND REGULATORY IMPACT ON RECRUITMENT AND RETENTION

The state should support a regulatory environment which promotes the recruitment and retention of health personnel, and the development of reimbursement policies which promote the health care costs based on the service performed.

Recommendations

- Amend restrictive laws inhibiting the supply and distribution of health providers in the state.
- Amend current state laws impacting the supply and distribution of health providers which appear to conflict with federal law.
- Request legislation allowing the use of national licensing examinations instead of state licensing examinations.
- Request legislation allowing physician assistants to perform their duties, under the supervision of a physician, with a single license.
- Request legislation extending sunrise reviews to all proposed legislation changing the practice or credentialing requirements of regulated professions.
- Establish in the Department of Health a health professions regulatory ombudsperson.
- Require implementation of the regulatory, policy, and administrative changes, referenced in the Plan, by the Department of Labor and Industries, the Board of Nursing,

and the Department of Health.

- Encourage implementation of the policy recommendation of the DSHS Task Force on Home Births, as referenced in the Plan.

9. SUBSIDIZATION OF MALPRACTICE INSURANCE COSTS

The state should support and expand programs to subsidize or provide malpractice insurance to health care practitioners serving target populations and serving in designated rural and urban underserved areas.

Recommendations

- Continue financial assistance to rural and urban underserved communities for subsidization of malpractice insurance for retired physicians.
- Expand current insurance subsidization program to include other licensed health personnel not covered under existing law.

10. EFFORTS TO REDUCE HEALTH PERSONNEL ISOLATION

The state should support and expand programs designed to reduce the effects of health care provider isolation. This should include ways to meet the needs of placebound health providers and their families, particularly in rural areas.

Recommendations

- Support institutions and organizations providing continuing education programs in rural areas.
- Develop and implement short-term intensive training programs (mini-residencies) to provide skill enhancement and create linkages between isolated providers and larger regional networks and systems.
- Develop and implement distance learning technologies to assist health providers in rural communities.
- Encourage development of community-based clinical preceptors and preceptorship programs.
- Expand computer-based Regional Medical Library.
- Expand the University of Washington School of Medicine MED-CON system.

- Encourage the use of available technology to reduce professional isolation.
- Encourage development and use of locum tenens program to reduce the effects of professional isolation.
- Develop and implement recognition programs for health personnel and communities in rural and urban underserved areas.

11. ALTERNATIVE TRAINING SITES

The state should provide alternative training sites to provide training different from the technology-intensive, multi-specialty setting most health professionals now use.

Recommendations

- Establish a central, coordinating mechanism to periodically assess clinical site availability, capacity, and appropriateness.
- Health professions training programs should develop linkages with community-based clinical sites to provide training opportunities for health professions students.
- Health professions training programs should offer students early and continuous exposure to primary care and service to the underserved.
- Health professions training programs should develop clinical teaching faculty career tracks and provide faculty development for interested community-based instructors.
- Community-based training sites should provide interdisciplinary training, and the Area Health Education Center (AHEC) program should take a lead role in developing such training opportunities.
- Encourage use of telecommunications programs to enhance health professions training at community-based sites.
- Encourage computer companies, vendors, or other businesses to donate personal computers to community-based sites for student access to medical data bases and journal articles.
- Identify funding to develop new alternative training sites and maintain existing ones.

12. NURSING ARTICULATION

Nursing articulation is the process of students moving from one level of nursing education to another. Nursing education has made considerable progress toward creating a more articulated system, and it could be a model for other professions. The problem of educational articulation is by no means unique to nursing. In this phase of the Plan, nursing has received most of the attention because of legislative mandate. In the next phase, the articulation issues of other health professions will be examined and addressed.

Recommendations

- Study whether the number of credits generally required for the associate degree in nursing is excessive. Include the related implications for nursing education.
- Encourage community colleges to frequently offer prerequisite courses in block format to improve access to health professions students, including nursing students.
- Explore alternatives to multiple-choice testing by nursing programs so students wishing to challenge courses have testing options.

13. RECRUITMENT OF UNDER-REPRESENTED GROUPS

The state should improve access to health professions education for groups whose representation in the health professions is significantly below their representation in the state's population. In nursing, men should be targeted for special recruitment drives. Rural residents also deserve higher representation in the health professions.

Recommendations

- Increase interest in the health professions among underrepresented groups.
- The state should support and encourage expansion of early outreach programs such as those provided by AHEC, professional associations, and educational institutions.
- Include more health professions in the University of Washington's Minority Students Health Sciences Pre-professional Program.
- Continue assistance to community college students in remediation programs who want transition into professional programs such as nursing.

- Institutions and departments should explore the feasibility of creating an admissions policy that would expand the enrollment of underrepresented groups.
- Institutions and departments should emphasize retention programs for minority students.
- Health professions programs should emphasize retention programs for minority students.
- Health professions programs should create more flexible programming sensitive to the cultural needs and learning styles of students.
- Identify funding for recommended special health professions programs for underrepresented groups.

14. EDUCATING MORE PHYSICIAN ASSISTANTS, ADVANCED REGISTERED NURSE PRACTITIONERS, LICENSED MIDWIVES, AND CERTIFIED NURSE MIDWIVES

Physician assistants, advanced registered nurse practitioners, and certified nurse/licensed midwives contribute significantly to improving health care access in Washington. As demand for these health professionals rises, state schools should educate more of them.

Recommendations

- The state should support the Medex physician assistant program both directly and through increased service-contingent loans and scholarships.
- The Medex program should explore the feasibility of community contracting for training slots.
- The Medex program should develop rural training sites; support should come from the state, the community, or a combination.
- Support the University of Washington's efforts to implement an evening program for physician assistants at the Tacoma Branch Campus.
- The state should support the primary care nurse practitioner program at the University of Washington.
- The state should identify ways to receive federal money for a family nurse practitioner program.
- Increase funding for the Health Professional Loan Repayment and Scholarship Program to adequately support

(1) midwifery students at the Seattle Midwifery School and Bastyr College and (2) nurse midwifery students in the Community-based Nurse-midwifery Education Program (CNEP). In addition, the state should support grant opportunities for additional funds.

- The state should support the development of a nurse midwifery program at the University of Washington.

15. RURAL TRAINING TRACK FOR MEDICAL STUDENTS

More primary care physicians are needed for the rural parts of Washington. The literature suggests that having a rural background predisposes physicians to desire to practice in rural areas.

Recommendations

- Encourage the medical school to develop an undergraduate rural training track, with emphasis on recruitment.

- Working in concert with community organizations and professional groups, the medical school should increase the rural student applicant pool by stimulating interest in medical careers.

- The medical school should explore changes to the admissions policy that would expand the enrollment of rural students.

- Develop a medical student program that would reinforce interest in rural practice and primary care.

- The University of Washington should encourage community organizations and professional groups to assist the medical school with both the recruitment and reinforcement phases of the rural training track.

16. GEOGRAPHIC DISTRIBUTION OF RESIDENCY TRAINING

Primary care residency training programs are more concentrated in the urban and western parts of Washington than east of the Cascades. Family practice has the broadest distribution of residency training programs throughout the state. Therefore, efforts to achieve a better geographic balance should build upon this and focus on the family practice specialty area.

Recommendations

- The state's first priority for rural family practice residency programs should be to adequately fund existing, planned programs.

- The state should identify resources to retain the Rural Training Track, an experimental program based in the Spokane residency program.

- If a third residency program is needed east of the Cascades, the legislature should work with the residency network and the University of Washington Department of Family Practice to identify funding sources.

17. TELECOMMUNICATIONS INITIATIVES FOR PLACEBOUND HEALTH PROFESSIONALS

Health professionals and students in remote locations typically do not have geographic access to the education needed to stay current or advance in their fields. Rural practitioners often cannot take the time to travel to a site where the required continuing education is offered.

Recommendations

- Create a telecommunications network that supports health professions training as a cooperative effort involving institutions of higher education and state agencies.

- Develop programs for targeted professions with special emphasis on placebound students or providers through existing resources, such as the Communications Technology Center for Community and Technical Colleges.

- A consortium of health professions schools and programs should explore both private and state sources of funding for telecommunications initiatives.

- The state should identify resources to retain Project 2000, a distance learning program offered by the University of Washington School of Nursing.

- The state should consider providing operating funds to ICNE for a baccalaureate nursing program at Wenatchee.

- Consider extension of WHETS to Yakima to support ICNE's registered nurse and basic baccalaureate programs.

18. NURSING FACULTY SHORTAGE

Nursing programs at all levels, from high school nursing assistant programs to university graduate degree programs, are having great difficulty recruiting faculty. The supply of masters- and doctorally prepared nurses has not kept pace with demand.

Recommendations

- Explore options for raising nursing faculty salaries to make them more competitive with private industry.
- In master's degree programs, place more emphasis on developing teaching skills and interest.

19. HEALTH PROFESSIONAL LOAN REPAYMENT AND SCHOLARSHIP PROGRAM

The Health Professional Loan Repayment and Scholarship Program is expected to play a vital role in the distribution of health care providers in the state. This program may be the most important tool the state has for inducing health professionals to practice in shortage areas.

Recommendations

- While both components of the Loan Repayment and Scholarship Program need additional funds, loan repayment should receive priority because of its immediate effect on geographic distribution of health services.
- Add naturopathic medicine to the list of professions for eligibility under the Health Professional Loan Repayment and Scholarship Program.
- Provide additional funds so the Health Professional Loan Repayment and Scholarship Program can have a greater impact on the practice locations chosen by graduates.
- All professions designated as a priority profession will continue their priority designation into the 1993 - 95 Plan.

20. OSTEOPATHIC PHYSICIANS IN THE WICHE PROGRAM

Because most osteopathic physicians are generalists, they are an important source of primary care for Washington residents. In Washington State, there is no osteopathic medical school. Washington residents, compared with the residents of other states, have very low access to a medical education. Participation in the WICHE program would increase this access to medical education.

Recommendations

- To expand the availability of primary health care and health care education, the state should consider funding osteopathic medicine in the WICHE program.

SUPPLY AND REQUIREMENT DETERMINATION

There is a distribution problem creating shortages of primary care providers in parts of the state of Washington. These shortages are geographic and population specific, with most physician shortges occuring in rural counties.

The U.S. Bureau of Health Professions projects Washington's overall supply of nurses will be in the range required to meet population needs by the year 2000. However, there are shortages in particular facilities, specialties and geographic areas which will continue. Some facilities are using nursing pools, non-credentialed personnel and wage increases to offset these shortages. These methods have serious implications for access and cost of health care services, and could potentially jeopardize federal and state funding.

The number of vacancies for all levels of health providers in underserved areas is high. These vacancies are in both rural and urban underserved areas with large numbers of low income, minority and elderly populations. These provider vacancies, particularly as they relate to rural areas, threaten the viability of a number of county health care systems and consequently the health of the people within the community.

THE INVENTORY OF HEALTH PROFESSIONS EDUCATIONAL PROGRAMS AND STUDENTS

The inventory of health professions educational programs and students is part of a larger effort to determine the supply and distribution of health professionals in Washington State. Health policy makers have traditionally viewed education as an important vehicle for altering the supply and distribution of health professionals. The output of the schools, along with retirements and in- and out-migration of health professionals, provides a measure of net changes in the state's supply.

The legislation asked that five data elements be included in the inventory: applications, admissions, numbers on waiting list, enrollments, and certificates/degrees awarded. So that trends could be detected in the data, a five-year time frame was chosen. Applications, admissions, enrollments, and degrees/certificates awarded were requested for the years 1987-88, 1988-89, 1989-90, 1990-91, and 1991-92.

Because of their bearing on issues raised in the legislation, other data elements were added. They formed three categories: (1) student characteristics, including ethnicity and gender, average age, place of origin, and social security numbers; (2) financial aid; and (3) institutional capacity.

A series of questions was added on institutional capacity to get at the distinction between the volume of students moving through the system and the system's capacity to respond to increases in student volume. Of particular interest was any excess capacity and what an institution required in order to utilize such capacity.

The response rates after extensive follow-up were: nursing assistant programs (50%), licensed practical nursing programs (60%), associate degree nursing programs (70%), 4-year baccalaureate nursing programs (71.4%), RN-baccalaureate programs (81.8%), master's degree nursing (66.7%) licensed midwifery programs (100%), "single" programs (medical school, Bastyr College, COMP, and Medex) (100%), primary care residency programs (other than family practice) (100%), military residency programs (80%), and family practice residency programs (excluding military) (100%). (see Exhibit 20)

Not all programs could provide all the data requested. No programs reported data on place of origin. Very few programs were able to provide social security numbers and financial aid data. Very few programs had data on applications by ethnicity. Many programs did not have data on admissions by ethnicity. Some of the data were not usable.

Despite the missing data and the response rate, it is possible to make certain statements about health professions training in the state based on inventory results.

There has been considerable demand for health professions training. At the same time admissions have not kept pace with increasing applications.

- Medical school applications have risen from 1330 in 1988-89 to 2341 in 1991-92, while admissions remained constant at 165.

The application rates for the pediatrics and obstetrics-gynecology residency training programs at the University of Washington have also been rising.

- In 1987-88 pediatrics received 278 applications for 18 positions; in 1991-92, 369 applications for 20 positions.
- For obstetrics-gynecology the comparable numbers were 278 applications for five positions and 348 applications for six positions.

There has been no clear trend upward or downward in the application rate for the family practice affiliated programs or the University of Washington internal medicine programs (See Tables Ed-4 and Ed-5 in Appendix A). However, like the obstetrics-gynecology and pediatrics residency programs, the ratio of applications-to-admissions has been high. For the traditional internal medicine program it was 611-to-28 in 1991-92; for several programs in the family practice network, the ratio was greater than 200-to-6. Since medical graduates can apply to more than one family practice program, these numbers undoubtedly reflect some duplication.

The application rates for the associate degree nursing programs have varied, depending for the most part on the geographic location of the program. Applications rates have been increasing for the programs in Spokane and the I-5 corridor. The two most dramatic examples are Everett--which went from 107 applications in 1987-88 to 417 in 1991-92--and Shoreline, which in the same time period, went from 204 to 527 applications. These rates may reflect considerable duplication.

A growing discrepancy between admissions and applications has created several pressure points in the system of associate degree nursing programs.

- At Bellevue, applications rose from 136 to 175 from 1990-91 to 1991-92, while admissions remained constant at 50.
- During the same period, applications rose from 347 to 417 at Everett, while admissions declined from 74 to 60.
- Shoreline in that time frame went from 390 to 527 applications, and 118 to 103 admissions.
- In 1991-92, Skagit Valley had 450 applications for 33 positions; it had two fewer positions from the previous year even though applications rose by 112.

In contrast to the associate degree programs, basic baccalaureate programs were able to make some accommodation to the inceasing demand.

- Pacific Lutheran University, for example, increased its number of slots from 57 in 1989-90 to 78 in 1990-91 when its applications rose from 80 to 135.
- During the same period, the Intercollegiate Center for Nursing Education (ICNE) was able to increase its admissions from 103 to 137 in response to an increase in applications of about 100.

Applications to the Medex program have steadily increased from 1987-88 to 284 in 1991-92. Although overall admissions have also increased, admissions of Washington applicants have not. (See Table Ed-36 in Appendix A)

For the Bastyr College progam in naturopathic medicine, there was an increase in applications from 64 in 1987-88 to 88 in 1991-92. There was no trend, either up or down, for Seattle Midwifery School applications over the same period. (See Table Ed-35 in Appendix A)

Because of missing data and the response rate, the enrollments data cannot be used to provide an estimate of the total number of students in the pipeline.

Programs were asked to report applications, admissions, and enrollments by ethnicity and gender. A discussion of the results appears in Appendix A.

Program directors were asked if they could expand enrollments within constraints of physical space, instructional funds, clinical facilities and resources, and administrative/support levels. After this series of questions, program directors were asked if they would add more students if the above limitations were removed.

The medical school indicated that it would continue to enroll 165 students each year for the foreseeable future (i.e., year 2000). Obstacles to expansion were instructional funds, clinical facilities and resources, and administrative and support levels. The medical school said that it would be willing to increase the enrollment by 10-15 students targeted for rural practice provided there were a "modest" increase in support.

The pediatrics residency program indicated that it would increase total enrollments from its current 59 to 64 in 1995 and 70 in 2000. If limitations were removed, it would "plan to add residents at about rate of increase during past 10 years": from 1992 to 1995 a total of 3 to 4 and from 1995 to 2000 a total of 4 to 5.

The obstetrics-gynecology and internal medicine programs were not in favor of expansion. They indicated that, "Without dramatic increase in patient volume, addition of more residents would dilute the educational experience."

Of the three family practice programs that responded to the institutional capacity questions, none reported an increase in yearly enrollments of more than six by year 2000. The Spokane program mentioned "the practical limit of available patients for teaching purposes."

Most community college nursing directors acknowledged that enrollments could be expanded if certain limitations were removed and expressed a willingness to do so. Programs experiencing large increases in applications had varying responses on the question of projected enrollments. Shoreline mentioned a possible shortage of jobs for graduates as being the reason it contemplated no expansion. Bellevue said it would stay at its current level of 50 indefinitely; as its reason for not expanding, it also mentioned the possibility of flooding the market with new graduates.

Of the four baccalaureate programs responding to the institutional questions, two of them planned sizeable increases in enrollments. ICNE, the only public institution responding, indicated that the registered nurse baccalaureate program could be reactivated in Yakima if WHETS were extended to the community. The Medex program said that it would stay at the current level of about 42 through year 2000 unless more funding were made available. A more complete discussion of both methodology and results appears in Appendix A.

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Exhibit 20

30-Aug-92 **SURVEY RESPONSE RATES FOR THE HEALTH PERSONNEL RESOURCE PLAN**

	NURSING ASSISTANT		LICENSED PRACTICAL NURSING		ASSOCIATE DEGREE NURSING		4-YEAR BACC. NURSING		RN-BACC. NURSING		MASTERS NURSING		OSTEOPATHIC SCHOOL		NATUROPATHIC SCHOOL		PHYSICIAN ASSISTANTS		LICENSED MIDWIFERY PROGRAM		UNDERGRAD. MEDICAL SCHOOL		PRIMARY CARE RESIDENCY		FAMILY PRACTICE PROGRAMS		MILITARY RESIDENCY PROGRAMS	
	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED
Bastyr College															x	x			x	x								
Bates Technical College	x		x																									
Bellevue C.C.	x				x	x																						
Bellingham Tech. College	x		x																									
Big Bend C.C.			x	x	x																							
Centralia College			x	x																								
City University									x																			
Clark College	x	x	x	x	x	x																						
Clover Park Tech. College	x	x	x	x																								
Columbia Basin College			x		x																							
Edmonds C.C.																												
Everett C.C.			e3	x	x	x																						
Gonzaga University									x		x																	
Grays Harbor College	x				x																							
Green River C.C.			x																									
Highline C.C.					x	x																						
ICNE/Tri-Cities									x	x																		
ICNE/Wa.St.-Yakima							e4	x	x	x																		
ICNE/E.Wa.,Wa.St.,Whitworth							e4	x	x	x	x	x																
ICNE/Vancouver									x	x																		
Lake Washington Tech. Coll.	e1	x																										
Lower Columbia College	e2	x	x		x	x																						
Medex																	x	x										
North Seattle C.C.	x		x																									
Olympic College			e3	x	x	x																						
Osteopathic School													x	x														
Pacific Lutheran Univ.							e4	x	x	x	x	x																
Peninsula College			x	x	x	x																						
Pierce College	x	x																										
Renton Tech. College	x	x	x	x																								
Saint Martin's College									x	x																		
Seattle Central C.C.	x				x	x																						
Seattle Midwifery School																			x	x								
Seattle Pacific Univ.							x	x	x	x	x	x																
Seattle University							e4	x	x	x	x																	
Seattle Vocational Institute																												
Shoreline C.C.					x	x																						
Skagit Valley College	x	x	x	x	x	x																						
South Puget Sound C.C.	x	x	x		x																							
South Seattle C.C.																												
Spokane C.C.	x	x	e3	x	x	x																						
Spokane Falls C.C.	x																											
Tacoma C.C.					x	x																						
Tacoma C.C./Gig Harbor	x	x																										
U.W. Medical School																					x	x						
U.W./School of Nursing							x	x	x	x																		
U.W./Physiological Nurs.											x	x																

BEST COPY AVAILABLE

30-Aug-92 **SURVEY RESPONSE RATES FOR THE HEALTH PERSONNEL RESOURCE PLAN**

	NURSING ASSISTANT		LICENSED PRACTICAL NURSING		ASSOCIATE DEGREE NURSING		4-YEAR BACC. NURSING		RN-BACC. NURSING		MASTERS NURSING		OSTEOPATHIC SCHOOL		NATUROPATHIC SCHOOL		PHYSICIAN ASSISTANTS		LICENSED MIDWIFERY PROGRAM		UNDERGRAD. MEDICAL SCHOOL		PRIMARY CARE RESIDENCY		FAMILY PRACTICE PROGRAMS		MILITARY RESIDENCY PROGRAMS	
	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED	HAS A PROGRAM	RESPONDED
U.W./Fam. Nurs. Pract.											x	x																
U.W./Comm. Health Care											x	x																
U.W./Parent & Child Nurse											x	x																
U.W./Pediatric Nurse Prac.											x	x																
U.W./ Psychosocial Nurse											x	x																
Walla Walla Comm. Coll.	x		x		x																							
Walla Walla College							x		x																			
Wenatchee Valley College	x		e3	x	x	x																						
Whatcom C.C.					x																							
Yakima Valley College	x	x	e3	x	x	x																						
RESIDENCY PROGRAMS																												
Group Health/Family Practice																									x	x		
Madigan Hosp./Family Prac.																							x					
Madigan Hosp./Internal Med.																											x	x
Madigan Hosp./OB-GYN																											x	x
Madigan Hosp./Pediatrics																											x	x
Naval Hosp. - Bremerton/Family Practice																											x	x
Providence Hosp./Family Practice																									x	x		
Providence/Seamar/Family Practice																									x	x		
Sacred Heart/Deaconess/Internal Medicine																							x	x				
Saint Peter Hosp./Family Practice																									x	x		
Spokane Family Practice																									x	x		
Swedish Hosp./Family Practice																									x	x		
Tacoma Family Practice																									x	x		
UWMC Family Practice																									x	x		
Univ. of Wash./Primary Care/Internal Med.																							x	x				
Univ. of Wash./Ob-Gyn																							x	x				
Univ. of Wash./Pediatric																							x	x				
Univ. of Wash./Traditional Internal Medicine																							x	x				
U.W./Seattle - Boise/Internal Medicine																							x	x				
Valley Medical Ctr. Renton/Family Practice																									x	x		
Virginia Mason Hosp./Internal Medicine																							x	x				

e1 = Program not set up yet
e2 = do not have a se[illegible] N program/have ladder program
e3 = LPN/ADN is [illegible] no separate data
[illegible] Combined RN - Ba[illegible] ociate and 4 - Year Nursing Program

DEVELOPMENT OF PLAN PRIORITIES

The 1993 - 95 Plan contains a wide array of programs, policies and strategies for consideration and implementation by state agencies, state educational institutions and communities. Many of the proposals reflect current approaches to resolving shortage problems, and are in the Plan to reflect the Committee's recommendation that the efforts continue. For example, the Plan recommends that the Office of Rural Health be established in statute, although it is funded in the Department's Current Authorized Level Budget. Other proposals reflect changes in focus or attitudes, not requests for a greater level of effort. For example, having the Department of Health work with communities to identify the appropriate mix of health personnel, is a proposed change in approach rather than a suggestion for additional studies.

The Department of Health's proposed policy decision package for the 1993-1995 budget contains a proposal for "Addressing Primary and Maternity Care Provider Shortages." This proposal was selected by the Statutory Committee and Department of Health after careful consideration of what efforts would produce the best mix of short-term results and long-term benefits. Some of the proposals help build the planning and recruitment system, while others are in the nature of pilot projects.

The foundation of the planning process is having adequate information and analytic capability to fully identify the supply and demand of, distribution and need for, health personnel. The Department of Health is moving forward rapidly to build a more comprehensive data base than was available for this year's planning effort. Without the analytic capabilities and data linkages proposed in the Department's budget request, the planning process will not be able to realize its full potential for the 1993 - 95 Plan.

The grants proposed in the Department's budget request reflect the belief that the Area Health Education Centers play a vital role in health personnel supply and distribution efforts. The remainder of the grants are a mix of broad efforts to increase the general supply of personnel through expansion of health career information and general recruitment campaigns. They also target efforts to train more physician assistants and tap into the potential pool of practitioners who may be interested in relocating to rural or urban underserved areas. The Medex NW and start-up subsidies are recommended at a level sufficient to test the potential.

The proposal to increase staffing for the Department of Health's Recruitment and Retention Clearinghouse reflects the very broad mandate given by the legislature and by the Plan. The Clearinghouse was not fully funded by the 1991 legislation which established it. The Plan proposes that the Clearinghouse reach its full potential for providing technical assistance and coordination.

Other than the regulations adopted by regulatory agencies themselves, the greatest potential for increasing barriers to practice of a profession lies with legislation proposed to increase the requirements for obtaining or maintaining a license, certification or registration. The sunrise process has been shown to be a very effective tool in making sure that regulation is permitted only where necessary. The sunrise review process is an important step in controlling the expansion of regulation.

The Statutory Committee believes strongly that enhancing the use of the existing supply of health personnel is a major strategy in addressing shortages. The Health Professional Loan Repayment and Scholarship Program is a priority because it is such an effective tool for affecting the geographic distribution of health professionals. In addition, many populations are not receiving services because health personnel are not trained to work effectively with patients from different cultural, ethnic and racial backgrounds. The proposal to provide project funding for the Department to develop and promote programs to enhance the cultural consistency of health personnel will increase the supply of providers for target populations.

1993 - 95 PLAN PRIORITIES AND FISCAL REQUIREMENTS

The Plan gives priority to agency and institutional activities which increase the access of rural, urban underserved, and minority target populations to health care providers. Specifically, health provider development and access activities in the areas of database development, community recruitment and retention programs, target population recruitment efforts, and sunrise and regulatory impact should continue to be financially supported. These activities serve as the base on which the Plan is built. If no additional funding is provided for these activities, agencies and institutions should continue their current basic level of activity in these areas. This is the first level priority area of the 1993 - 95 Plan.

Building on this base, the Statutory Committee supports a DOH priority enhancement package of $1,621,736. (see below) and a HECB priority enhancement package of $1,118,000. (see below) for the the 1993 - 95 Plan. These DOH enhancements are specifically for database operation and linkage development, rural and urban underserved primary care provider recruitment and retention programs, recruitment and retention grants, regulatory and policy development activity, and an expanded sunrise and regulatory impact function. The Higher Education Coordinating Board requests funding as outlined below. This is the second level priority area of the Plan.

Those items not included in this package are still essential to the development of the Plan. Given the resources available for plan activity development and operation during 1993 - 95, they have been put forward for implementation in the next biennium. These extended implementation activities will comprise the third level of activity anticipated for Plan development, after the basic activity continuation and the enhancement package activities. These third levels activities will begin to be implemented in the 1995 - 97 Plan.

The following are the fiscal requirements from DOH for the implementation of the 1993 - 95 Plan, as determined by the Statutory Committee.

POLICY	BIENNIAL DOLLARS	FTEs FY 94/FY 95
1. ASSESSMENT	$261,350.	2.0 / 1.5

Implementation of Plan Recommendation (1), Assessment of Health Personnel Supply Requirements. Continue database operation and development, expand database to include all regulated and select non-regulated professions, provide data analysis, develop and refine plan criteria and definitions, provide technical assistance to communities for shortage designations.

2. GRANTS TO SUPPORT RECRUITMENT AND RETENTION ACTIVITIES	$929,250.	0 / 0

Implementation of Plan Recommendation (2), Cooperation Between the State and Federal Governments, and with other Organizations and Entities. Maintain and expand AHEC activities.

Implementation of Plan Recommendation (3), Primary and Maternity Care Services Delivery by a Mix of Health Personnel Providers. Develop primary and maternity care recruitment program, expand physician assistant training at MEDEX Northwest.

Implementation of Plan Recommendation (4), Community Efforts in Developing Adequate Health Personnel Supply. Develop recruitment and retention information for communities.

Implementation of Plan Recommendations (6), Assuring a Financial Base for Health Services. Provide funding for practice start-up subsidies for providers.

Implementation of Plan Recommendation (7), Joint Strategies for Recruitment and Retention. Development and distribution of health career information.

3. RECRUITMENT AND RETENTION EFFORTS	$310,276.	2.0/2.0

Implementation of DoH support for activities indicated under Plan Recommendation (4), Community Efforts in Developing Adequate Health Personnel Supply, Recommendation (5), Recruitment Efforts to

Respond to Target Population Needs, Recommendation (6), Assuring a Financial Base for Health Services, and Recommendation (7), Joint Strategies for Recruitment and Retention.

4. MINIMIZE REGULATORY IMPACT $72,450 0.5/0.5

Implementation of Plan Recommendation (8), Reimbursement and Regulatory Impact on Recruitment and Retention. Expansion of the Sunrise Review Act (RCW 18.120) and provision of regulatory ombudsman assistance.

5. CULTURAL COMPETENCY OF HEALTH PERSONNEL $48,410. 0.5/0.0

Implementation of Plan Recommendation (5), Recruitment Efforts to Respond to Target Population Needs. Identify, develop, and promote programs to assure culturally and linguistically competent health providers for target populations and areas.

Total DOH Request: $1,621,736. 5.0/4.0

The following funding priorities are being requested by the Higher Education Coordinating Board, with the support of the Statutory Committee, as basic requirements to continue and expand the educational activities identified in the Plan. The HECB's agency priorities include expansion of the conditional scholarship and loan repayment program and continuation of its statutory responsibilities for health personnel planning. Public higher education institutions will present their priorities this biennium by means of their biennial institutional budget requests. The HECB will consider and make recommendations on the institutional budget requests within the context of the overall and specific needs of higher education and the state.

6. GEOGRAPHIC DISTRIBUTION OF HEALTH PROVIDERS $908,000. 0.0/0.0

Implementation of Plan Recommendation (19.1), Expansion of Health Professional Loan Repayment and Scholarship Program, the most important tool the state has for affecting geographic distribution of health professionals.

7. EDUCATIONAL DATA COLLECTION AND ANALYSIS $210,000. 2.0/2.0

Implementation of Plan Recommendation (1), Continued development and analysis of database, policy, and educational priorities and plans.

Total HECB Request: $1,118,000. 2.0/2.0

The funding priorities requested by the State Board of Community and Technical Colleges will be included in their biennial budget request.

TOTAL 1993 - 95 PLAN REQUESTS: $2,739,736. 7.0/6.0

The activities listed above were determined by the Statutory Committee to be the base fiscal requirements for 1993 - 95 Plan implementation.

1995 - 97 PLAN ACTIVITIES

The focus of planning efforts for the 1995 - 97 Plan will be to put in place the goals and strategies addressed in the 1993 - 95 Plan, including the detailed information and policy development activities. The Statutory Committee and HPRP staff will continue to work closely with the Board of Health, Pediatric Access Committee, Maternity Access Committee, and the Health Care Commission (as appropriate) to coordinate state health care access policies.

The 1995 - 97 Plan activities will include completion of the health professions database, continued development of need and demand data, refinement of supply and needs definitions, and updating the need and demand determinations. Complete information on each entity and health profession involved in Plan will be developed using a structured process involving the educational institutions, state agencies, and public and non-profit organizations involved in 1993 - 95 Plan implementation.

Workgroups representing health professions will be established to provide data review and policy comment on the development of the Plan. A Planning Subcommittee will be established. It will develop and approve work plans, survey instruments, advisory committee and workgroup membership, supply and requirements determinations, and narratives and supporting documentation for future revisions of the Plan.

I. INTRODUCTION

INTRODUCTION

In 1991, the legislature enacted ESHB 1960, a legislative effort to provide a comprehensive and systematic solution to the problem of health profession shortages. For years, the legislature has been presented with the concern that certain professions are in short supply, and certain communities have difficulty in recruiting or retaining health professionals. Until 1991, the legislature's response was to adopt profession-specific programs or provide limited assistance to communities. During the summer of 1990, the Senate Committee for Health and Long-Term Care conducted a study to determine the scope of the problem of health profession shortages, and to evaluate the possibility of taking a more reasoned approach to the problem.

In 1991, SB 5514 was introduced by Senator West, Senator Niemi and Senator Linda Smith. The legislation proposed to establish a health personnel resource plan, developed by a five agency statutory planning committee, which would be used to identify health profession shortages and develop comprehensive solutions. The legislation also proposed to: 1) modify licensing requirements to increase inter-state mobility, 2) revise the health profession loan repayment and scholarship program, 3) require professions seeking regulation to demonstrate access to the educational programs necessary to meet proposed education requirements, and 4) establish a state-wide recruitment-retention clearinghouse.

The legislation was passed by the Senate Committee, but did not make it out of the Senate Ways and Means Committee within the time allotted. In response, the House of Representatives added the provisions of SB 5514 onto SHB 1960, legislation sponsored by Representative Prentice, and sent it over to the Senate for final "perfecting" and passage.

The Governor signed the legislation on May 21, 1991. The legislature provided partial funding during the June 1991 special session. The Department of Health was designated lead administrative agency of the five agency statutory committee in September 1991.

II. DESCRIPTION OF PLAN COMPONENTS AND RECOMMENDATIONS

DESCRIPTION OF PLAN COMPONENTS AND RECOMMENDATIONS

1. ASSESSMENT OF HEALTH PERSONNEL SUPPLY AND NEEDS

Background

A major component of the 1993 - 95 Plan is the continued development of a statewide health personnel database. This database will be used to assess the current supply and distribution of health personnel in the state, as well as the need and demand requirements for those personnel.

Development of supply data for the Plan was limited to surveying eight designated primary and maternity care professions. They are: physician and surgeon, osteopathic physician and surgeon, naturopathic physician, registered nurse, licensed practical nurse, physician assistant and osteopathic physician assistant, advanced registered nurse practitioner, and licensed midwife. Copies of the survey instruments used for these professional surveys are in the Appendix B.

Questions for this survey of primary and maternity care providers were developed through a series of meetings with licensing staff, professional association representatives, and individual members of each profession. Survey experts from the University of Washington were also involved. The surveys were mailed to each professional licensee, with follow-up surveys as necessary. The returned surveys became the basis for individual practitioner profiles. They also provided the preliminary data base for primary and maternity care provider supply and requirements analysis.

Database development in 1993 - 95 will consist of surveying the balance of the state licensed professions as well as identified non-licensed health personnel. In 1995 - 97, database development will be a continuation and update of the information gathered during 1993 - 95, and will feed the development of future biennial Health Personnel Resource Plans.

Data Uses and Sources

Survey information will be used for policy development as it provides broad overviews of health personnel practice patterns. The information generated from the 1991 - 93 provider surveys provides an overview of the supply and distribution of these professions across the state. Initially this information will provide indicators of health personnel requirements at the state, county, and sub-county levels. It will provide specific answers to questions about the practice of these professions in county and sub-county areas, such numbers of providers with specific practice specialties, number of patients seen, and hours worked per week per provider. State agencies and local communities can use the data in specific recruitment and retention efforts.

The Plan emphasizes rural and urban underserved areas. This database will provide the best available indicators of the distribution and requirements for particular professions in specific areas of the state.

There are limitations to the data generated by the 1991 - 93 surveys, including incomplete responses and low response rates. Because of these limitations, a number of other data sources will also be used. The longer the database collects health provider information the better the trend information will become. For example, the Statutory Committee will continue to conduct an inventory of health professions students and programs in the state. This will measure potential supply for health personnel over time.

Additional data sources being used to help determine health personnel supply and requirements numbers are listed in Appendix B.

Health Personnel Supply and Requirements for Washington

The 1993-1995 initial health personnel supply and requirements determinations for Washington are in Appendix B. It should be noted here that there are several methodologies which are available for determining need and demand requirements. An initial identification and review of these methodologies shows there is no one preferred methodology that is universally used.

Lacking an acceptable and accurate methodology within the time available to the Statutory Committee, the initial requirements determinations in Appendix B are based on those indicators seen as the most reasonable and accurate.

Development of Supply and Requirements Shortage Designations Data

A major area of need for future Plan development is the commitment of sufficient staff resources to develop precise definitions and methodologies. Making such resources available would improve the ability of the Statutory Committee and staff to provide the baseline data necessary to accurately develop criteria for state health personnel shortage determinations.

These determinations will also include the sub-county primary care service areas and the professions shortage designations necessary for participation in national health professions service programs. The Statutory Committee plans to work closely with local communities and community groups in securing federal shortage designations, necessary for participation in a variety of federal and state programs and to provide consultation and technical assistance regarding these programs. It will be economical to continue federal designation activities during a period when the

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state is committing more resources to health professions supply, distribution, and requirements issues.

Database Operations

Data from the initial database have been used to determine the primary and maternity care provider supply and requirements. It will take one full license renewal cycle, through September 1993, before most of the licensed health providers have been surveyed. From that point, the health personnel database will be the major resource for determining Washington health provider supply and requirements. To maintain the needed capacity for data collection and analysis requires one full-time staff research analyst, as well as funding for on-going data analysis.

The health personnel database will be upgraded through the annual update of provider profile information, which is a regular part of the license renewal process. In addition, methodologies are being developed to identify and survey non-regulated health occupations to include them within the state health personnel database.

Database Needs and Enhancements

Linking the health personnel database with the Department of Health and the Department of Social and Health Services databases (CHAR, Vital Records, First Steps, Medicaid) and other related state and federal data systems would be beneficial. Using other data already collected allows expansion of staff capability. Such linkages will make it possible to develop accurate community-specific practitioner service delivery profiles, with uses in both supply and requirements determinations and treatment outcomes analyses. These linkages will also enable the database to more effectively generate data concerning health personnel in the state.

Improved and expanded use of the database assumes that the capability to identify, develop, and use those linkages is put in place. The minimal need to achieve this capability is one full time computer analyst programmer, and appropriate computer/technical support to develop and implement these linkages.

Fulfilling these two minimal database and computer network-related requirements will insure development of the state health personnel database. This development includes the regular updating of the state health personnel practitioner profiles. These enhancements, along with the database analysis contract between DOH and the University of Washington, will enable DOH to assess the accuracy and validity of the previous collected data.

Benefits from Database Operation and Enhancement

- Continuation of current Health Personnel Resource Plan database development for primary and maternity care providers.

- Continuation of 1991 - 93 surveys of licensed health personnel (balance of professions).

- Continuation of development and implementation of 1993 - 95 surveys of non-regulated health personnel.

- Expansion of database capacity through development of linkages with existing state and federal databases, including CHARS, Vital Records, and Medicaid.

- Implementation of data assessment and reporting capability particularly relating to health personnel supply, requirements, and distribution issues.

- Generation of information clarifying health policy development issues.

- Development of precise definitions and methodologies relating to health personnel supply and requirement determinations.

- Generation of information needed to meet federal requirements for designations regarding professions shortages, target group identification, and geographic shortage areas.

RECOMMENDATIONS

1. The Health Personnel Resource Plan Statutory Committee will enhance the assessment of health personnel supply, distribution, need, and demand through the establishment of a statewide data base.

    1.1 The Department of Health, on behalf of the Health Personnel Resource Plan Statutory Committee, will continue to develop a detailed data-base identifying the supply and distribution of, and the demand and need for, health personnel.

        1.1.1 The Department of Health shall expand the health personnel data base to include all regulated health care professions.

        1.1.2 The Department of Health shall expand the health personnel data base to include selected non-regulated health care professions, including long-term care personnel and environmental health personnel.

        1.1.3 The Department of Health shall enhance the analysis of the supply and distribution of and the demand and need for health personnel included in the database.

    1.2 The Statutory Committee shall work with the Department of Health to develop definitions for sub-county primary care services areas and criteria for shortage designation.

    1.3 The Statutory Committee shall use other databases within the Department of Health, the Department of Social and Health Services, the Employment Security Department, and other agencies to improve information regarding the supply and distribution of, and need for, health personnel.

        1.3.1 The Committee shall identify useful data sources and create the necessary data linkages.

    1.4 The Statutory Committee shall, through the Higher Education Coordinating Board and the State Board of Community and Technical College Education, continue to conduct an inventory of health professions students and programs in the state. Such inventory will provide a measure of the potential supply of health personnel.

    1.5 The Department of Health shall work with communities to secure federal shortage designations by providing technical assistance and small area analysis. The Department of Health shall seek, through its budget process, necessary funding for this activity.

2. COOPERATION BETWEEN STATE AND FEDERAL GOVERNMENTS, AND OTHER ORGANIZATIONS AND ENTITIES

Background

The Statutory Committee believes that intergovernmental cooperation is critical to the successful development and implementation of the Health Personnel Resource Plan. There is a need for a strong state role in the development of the Plan to assure the adequate supply and appropriate distribution of health care providers into the 21st century.

Federal, state, and tribal agencies need to have active roles regarding their program, policy, and financial contributions to the success of state Plan implementation. These agencies need to consider their current and potential capabilities in health personnel training, education, and distribution. Community, state, regional and local organization and institution roles need to be defined. In addition, the activities of the communities, organizations and institutions involved in plan implementation should be financially supported for those agencies to achieve desired ends.

Committee Roles

The HPRP Subcommittees should continue to provide advice to the Committee from expert and topical area points of view. This will enhance the ability of the Committee to assess supply and requirements issues. The Subcommittees will also act as liaison with communities, professional associations, educational institutions, health care consumers, and students in the development of policies. Besides the Community Subcommittee and Education Subcommittee, other subcommittees may be appointed to provide advice on other areas of Plan development.

Area Health Education Center Roles

The two Washington Area Health Education Centers have been involved in health career training, continuing education, rural and underserved area health opportunities promotion, and recruitment and retention. For the past seven years they have worked closely with the University of Washington School of Medicine WAMI (Washington, Alaska, Montana, Idaho) program, helping develop clinical training sites, preceptorship placements, and opportunities for medical students in rural and urban underserved areas.

A continuation and expansion of these efforts is an important function under the Plan. Federal funding for these organizations is diminishing, reducing their proven capabilities in target population recruitment and educational service provision. This would seriously weaken ongoing efforts in these areas.

State Agency Roles

The following state agencies play a key role in the development and implementation of the activities outlined in the Plan:

- Department of Health, Licensing and Certification, Office of Health Services Planning and Operations Support, will continue as the lead in developing and updating the Plan. It will perform administrative functions required by the Statutory Committee associated with Plan development and implementation.

- The Higher Education Coordinating Board will continue to lead in development of the education portion of the Plan. It will do so in close cooperation with other educational agencies and institutions, particularly the State Board of Community and Technical Colleges and the Office of Superintendent of Public Instruction. It will perform education-related administrative functions required by the Statutory Committee associated with Plan development and implementation.

- State Board of Community and Technical Colleges (see above).

- Office of the Superintendent of Public Instruction (see above).

- Department of Social and Health Services will continue to assist the Statutory Committee to develop strategies and policies regarding regulation of health personnel as well as long-term care provider issues.

- Department of Employment Security will provide information on health employment patterns, health employer vacancy rates, and numbers and geographic locations of unemployed health providers.

- The University of Washington School of Medicine will provide technical assistance in survey and data analysis. It will also continue addressing rural health needs under agreements with Area Health Education Centers and Department of Health's Office of Community Health.

- The Washington Occupational Information System will provide health employment data on health personnel in the state.

- Other agencies will provide information and support as appropriate.

Tribal Roles

Tribal governments need to have a voice in the development and implementation of the Plan, particularly as it relates to the recruitment, training, education, and employment needs of both urban and reservation Native Americans. Tribes also need to be involved in health personnel requirements determinations, as these relate to needs on reservations and in rural and urban settings. Input is also needed to determine the cultural and linguistic competency of health care personnel. Expansion of the current Native American representation on the HPRP Subcommittees is a way to achieve the goal of enhanced inter-governmental and institutional cooperation.

Community Roles

Local communities play a pivotal role in the implementation of the state Health Personnel Resource Plan when there is a need for health providers in specific communities. The communities themselves will be responsible for requesting the technical and financial assistance required as a part of successful recruitment and placements. The role of the state will be to provide that technical and financial assistance in the manner best suited to meet those needs as defined by the community. (see Component 4, COMMUNITY EFFORTS IN DEVELOPING AN ADEQUATE HEALTH PERSONNEL SUPPLY)

Other Agencies and Institutions

Cooperation between state government and other agencies and institutions in health provider education, training, and placement is essential. Organizations such as the Northwest Regional Primary Care Association have been successfully involved in primary care provider recruitment for rural and underserved areas of Washington since 1983. The state should support those efforts as a necessary part of the Plan. Particular attention needs to be paid to organizations which target minority recruitment, and recruitment of health personnel to serve in minority and target population areas. The Statutory Committee should identify foundations, other organizations, and private entities which can participate in the development and implementation of the Plan. (see Component 4, COMMUNITY EFFORTS IN DEVELOPING AN ADEQUATE HEALTH PERSONNEL SUPPLY and Component 5, RECRUITMENT EFFORTS TO RESPOND TO TARGET POPULATION NEEDS)

Benefits from role definitions, policy and program review and other cooperative efforts between the state and federal governments and other organizations

- Optimizes use of resources available at all levels.
- Eliminates duplication of effort and waste of

resources.

- Concentrates efforts on activities which are proven and have the best potential for successful implementation in other areas.
- Channels resources where they are needed and can be most effective.
- Insures appropriate levels of resource and service allocations to minority, rural, and urban underserved groups and communities.
- Enhances the role of the Office of Community Health. Expands its capabilities and rural training and practice opportunities.
- Provides more appropriate numbers and categories of primary care providers in and from rural areas, minority, and urban underserved areas.

RECOMMENDATIONS

2. The state should establish a framework for cooperation between state, federal, and tribal governments, state and regional organizations, health services providers, local communities, and federal and state health services personnel development programs.

   2.1 The Statutory Committee shall serve as a forum for communication and cooperation among agencies. The forum will assess the supply and requirement of health personnel, and develop policies which effect supply and distribution of health personnel. State agencies shall assist the Committee in promoting cooperation.

   2.2 The Statutory Committee shall develop a framework for, and promote cooperation among state agencies and educational institutions, state and regional organizations interested in the delivery of health services, and health service providers and local communities.

      2.2.1 The Committee shall form an advisory committee(s) broadly representative of state and regional organizations, health service providers, educational institutions and local communities. The committees will advise it on all aspects of the development and implementation of the Plan.

   2.3 The state shall maintain and enhance the present agreement of the Department of Health, the Area Health Education Center at Washington State University Spokane, the Western Washington Area Health Education Center, and the University of Washington School of Medicine to address rural health needs. Needs include: continuing education for rural providers; promoting interest in health careers; recruitment and retention of health personnel; and assistance in community development.

      2.3.1 The Statutory Committee shall request legislation to put the Office of Rural Health in statute.

      2.3.2 The Committee shall request General Fund support for agencies and organizations within the Office of Rural Health. Immediate General Fund support is needed for the Western Washington Area Health Education Center to replace expired federal funding and to continue the Area Health Education Center at Washington State University Spokane.

2.4 The Statutory Committee shall maintain strong liaison with state agencies to identify information on underemployed, unemployed or second career individuals for potential recruitment into health professions.

2.5 The state should work with the federal and tribal governments to increase opportunities to promote services to rural, urban-underserved and minority populations.

2.5.1 The Committee shall identify federal and tribal programs and policies which influence the supply and distribution of health personnel.

2.5.2 The Committee shall develop a partnership with state, federal and tribal educational institutions, state and regional organizations, health providers and communities, to influence federal policies and programs.

2.5.3 The Committee shall identify various private and public foundations or organizations that are involved with the supply and distribution of health personnel.

3. PRIMARY AND MATERNITY CARE SERVICES DELIVERED BY A MIX OF HEALTH PERSONNEL PROVIDERS

Background

There is an urgent need for primary and maternity care health providers in Washington. The need for the provision of this type of health care depends to a large extent on where in the state a citizen is seeking it. The numbers and types of primary care providers varies from region to region and from county to county. In some counties there is a complete lack of specific types of providers. In others the ratio of one or more types of providers to population is well above the national and state averages. Consequently, development of the proper mix of providers, a system of appropriate distribution of those providers, and a revised payment and reimbursement system are all part of an essential package. Such a package would work to secure the services of primary and maternity care providers in designated rural and urban underserved areas.

Maximizing service provision in a mix of providers

The Statutory Committee recognizes the value of the different skill levels of each type of primary and maternity care provider. Within their scope of practice, the various providers should be recognized as having unique contributions to make to the delivery of health services. Health services can and should be delivered at the most appropriate and cost-effective level. In that context, providers who are licensed to provide a service and can do so at the lowest cost, without sacrificing quality of service, should be the provider of choice. Again within scope of practice limitations, health consumers should have the opportunity to select the level of provider they desire and to pay for the provision of that service.

The state should optimize the use and distribution of health personnel. It can use such vehicles as revised provider reimbursement policies, loan and scholarship repayment programs, malpractice insurance subsidies, and health provider practice subsidies. (see Component 6, ASSURING A FINANCIAL BASE FOR HEALTH SERVICES and Component 10, EFFORTS TO REDUCE HEALTH PERSONNEL ISOLATION)

Communities need to be intimately involved in determining the appropriate mix of health providers to meet their needs. Through the technical assistance provided by the state, communities can develop the strategies needed to realize the mix of providers they have chosen. (see Component 4, COMMUNITY EFFORTS IN DEVELOPING AN ADEQUATE HEALTH PERSONNEL SUPPLY)

The state should commit to the development and implementation of marketing and recruiting strategies in cooperation with affected communities. This will result in those communities achieving their desired mix of health care providers. The state should support health careers informational activities at all levels, with special emphasis on culturally diverse, minority, underrepresented, rural, and urban underserved recruitment efforts. (see Component 5, RECRUITMENT EFFORTS TO RESPOND TO TARGET POPULATION NEEDS)

The state should identify institutions which are training providers in short supply, and work with them to enhance such programs to meet the needs of communities. An example of this is the work conducted by the Western Washington Area Health Education Center (WWAHEC) in interdisciplinary training. The state should further encourage these programs and institutions, in particular state educational institutions, to develop collaborative practice training for appropriate health professions students. This will provide the broadest understanding of the functions of each profession to all health professions students. The state should also work with educational institutions to seek direct funding for training in specific professions which have been designated as shortage professions in the Plan.

Benefits from services provided by a collaborative mix of health personnel through above activities

- Trains providers to meet identified health care needs at the lowest possible cost.
- Distributes providers with specific levels of training through loan repayment, tiered reimbursement, and practice subsidy processes to identified areas.
- Health care consumers could choose the type of care they want without lowering the quality of the care they receive.
- Increases overall supply of primary and maternity care providers in areas of need and maldistribution.
- Collaborative provider relationships would become the rule rather than the exception, resulting in better patient care.
- Lowers health care costs would be lowered by paying for specified delivered services, rather than for the particular skill level of the provider delivering those services.
- Undertakes provider recruitment efforts in a coordinated fashion at the lowest cost.
- Increases supply of health professionals from minorities, underrepresented groups, and target populations.

- Increases number of trained minority and target population health professionals practicing in rural and urban underserved areas.

RECOMMENDATIONS

3. A mix of providers can deliver primary and maternity care services. This mix includes medical physicians and osteopathic physicians, naturopathic physicians, midwives, advanced registered nurse practitioners, physician assistants, and other health personnel. Provision of services should be as appropriate to training and scope of practice, and with interdisciplinary collaboration.

3.1 The state shall support efforts to recognize the unique contribution each type of health personnel can make to the delivery of health and illness care.

3.2 The state shall promote efforts to develop interdisciplinary collaboration among health personnel in the field.

3.2.1 The Department of Health shall work with communities to identify the appropriate mix of health personnel needed and to develop collaborative relationships among the providers.

3.2.2 Educational institutions should encourage collaborative practice during training to assure successful interdisciplinary relationships.

3.3 The state shall support the training, recruitment and retention of the various primary care providers to achieve a cost-effective and accessible mix.

3.3.1 The Department of Health shall encourage and support the development of information regarding each health profession and distribute the information to communities, through health career fairs.

3.3.2 The Department of Health in collaboration with the Area Health Education Centers and other organizations shall participate in or co-sponsor state and regional health career fairs. These fairs will target middle and high school students, opportunities for culturally diverse and underrepresented groups and individuals interested in a second career. Funding shall also be targeted to culturally diverse and under represented groups.

3.3.3 The Statutory Committee shall seek direct General Fund-State support for the Medex

Northwest Physician Assistant Program, the Advanced Registered Nurse Fractitioner programs, midwifery programs, and other programs not currently funded which train providers in short supply.

3.3.4 The Statutory Committee, shall seek funding for a Midwife-In-Training program to enable the Department of Health to carry out the provisions of RCW 18.50.040(3). The Committee shall request legislation authorizing the Department of Health to contract for the program.

3.3.5 The state should provide funding to support Washington's involvement as a "sending" state in the Western Interstate Commission for Higher Education (WICHE) Osteopathic Physician Program.

3.3.6 The Department of Health shall, in cooperation with other organizations, develop sourcing and marketing contacts to recruit primary care service providers to Washington state.

3.4 State agencies which pay providers for health services shall review reimbursement policies to evaluate consistency with scopes of practice. Agencies shall be required to report findings of their review to the Statutory Committee for assessment as potential regulatory barriers to the supply and distribution of health care providers.

4. COMMUNITY EFFORTS IN DEVELOPING ADEQUATE HEALTH PERSONNEL SUPPLY

Background

The Statutory Committee has determined that there is a need to directly involve communities in developing assessments of their own health personnel supply requirements. Those communities should expect technical assistance from the state to plan strategies to assure an adequate supply of health personnel. These efforts can best be supported through development of partnerships on communities with educational institutions, organizations involved in health personnel recruiting, and local health providers.

There are several community-oriented health provider recruitment projects underway through the University of Washington School of Medicine, the Northwest Regional Primary Care Association, the Department of Health's Office of Community Health, and other organizations. These efforts need to be encouraged to assure effective efforts to develop adequate health personnel supply to rural, urban underserved, and minority areas. This will meet the requirements of the legislation and to assure a sufficient supply of trained, culturally and linguistically competent health care providers for these areas and target populations.

Health Personnel Supply Development Efforts

The major health personnel recruitment efforts now underway are:

- The Department of Health's Office of Community Health provides technical assistance to the Higher Education Coordinating Board regarding health scholarship and loan repayment programs. It also works with non-profit corporations to identify health service provider gaps. The Office also contracts with rural communities to develop support mechanisms which include recruitment and retention components. It also administers state contracts with the Area Health Education Center at Washington State University Spokane and Western Washington Area Health Education Center. These contracts provide continuing education for rural providers, community health systems activities, and technical assistance to health facilities for recruitment and retention. The locum tenens program is funded by the state and administered by the Office of Community Health.

- The Northwest Regional Primary Care Association conducts recruitment activities for health organizations to recruit primary care providers for rural and urban underserved communities.

- The WAMI program is a consortium of Washington, Alaska, Montana, Idaho which gives medical students opportunities to participate in rural practice internship, preceptorship, and mentoring programs. One focus of the program is to actively recruit medical students for family and general medicine practice in rural areas. The University of Washington School of Medicine has participated in the WAMI program since 1971.

Support and enhancement of current efforts to develop adequate health personnel supply

The state needs to develop the structures which provide comprehensive community-directed assistance for assuring adequate health provider supply in Washington. In particular, there should continue to be technical and financial to communities. These efforts need to be enhanced with higher levels of technical and financial support from the state.

In addition, there should be concrete encouragement to rural and urban underserved communities to participate in such programs. The state should support efforts by communities and organizations to maintain a central data file on individuals seeking employment, in health occupations, and health services employers seeking personnel for employment. These activities are essential to augment the effect of the financial resources being expended in these areas.

Another issue affecting the supply of health personnel at a very basic level involves the state budget process and institutional lids on health personnel education programs. One possible method of overcoming the enrollment lid barrier without adversely effecting state and institutional budgets is the concept of "purchasing" student slots. Communities in need of those types of health personnel would fund slots in health personnel education and training programs.

Some health personnel employers have agreements with non-public educational institutions to "buy" student slots. The employer then recruits and sends the students to fill those slots, and provides funding to the institution to cover the cost. Graduates are then committed to work for the employer for a specified period to "pay back" the cost of the education. There is potential for use of this concept for communities which have determined their need for particular types of health personnel.

State educational institutions, in partnership with communities could use "purchased" slots. This kind of arrangement would be above the current funding available as established in the state budget. This concept would provide more educational opportunities for health personnel, including minority and underrepresented groups. It would also provide needed supplies of health personnel to communities in rural and urban underserved areas without adversely effecting state or institutional budgets.

Care needs to be taken that funds allocated for health personnel education are not reallocated for other purposes due to the implementation of the program. The purpose of the program is to expand educational capabilities, not merely change the source of funding for current education efforts.

Benefits from supporting and enhancing efforts to develop programs assuring an adequate supply of health personnel

- Continuation of successful programs to develop adequate supply of health professionals.
- Expansion of successful programs to develop adequate supply of health professionals.
- Increased recruitment of students from rural and urban underserved areas.
- Coordination of different programs which are working toward similar health personnel supply goals.
- Direct community involvement in the recruitment and selection processes, and in providing the financial support necessary for successful implementation.
- Optional uses of resources.

RECOMMENDATIONS

4. The state should support the development and implementation of regional and community efforts to assure an adequate supply of health personnel. These efforts should involve all segments of the affected regions or communities.

4.1 The state shall, in cooperation with educational institutions, support organizations which enable communities to assess the need for, and recruit and retain the appropriate health personnel.

4.1.1 The Statutory Committee shall work in partnership with the Department of Health, state-wide organizations, and local communities to strengthen community efforts to assess the need for, and to recruit and retain, personnel. The Committee shall encourage both urban underserved and rural communities to use these programs.

The Department of Health shall provide technical and financial assistance to communities which volunteer to establish Community Health Services Development Projects.

4.1.2 The Department of Health shall maintain its Rural Health System Development Program. This program contracts with rural communities to develop innovative efforts to correct health system problems. Activities may include recruitment and retention activities as well as development of infra-structure mechanisms necessary to support providers.

4.1.3 The Department of Health shall provide for the development of information packets which will help communities in developing recruitment and retention plans.

4.2 The Statutory Committee shall explore the feasibility of communities and employers contracting with state educational institutions to fund training for qualified students who agree to serve in the communities.

4.3 The Department of Health shall support efforts by non-profit organizations and communities to maintain data on individuals seeking employment and communities or employers seeking personnel.

5. RECRUITMENT EFFORTS TO RESPOND TO TARGET POPULATION NEEDS

Background

As discussed in Component 7, JOINT STRATEGIES FOR RECRUITMENT AND RETENTION, there are several recruitment efforts underway which are aimed at minorities, under-represented groups, and target populations. Mostly, these efforts operate separately and there is little coordination of effort. This results in the scattering of financial and other resources available for target population recruitment. To effectively recruit from and for target groups, specific strategies need to use an intregal part of the overall recruitment plan. There should be particular emphasis on bringing health careers to the attention of target group individuals as students and young adults.

Efforts needed to promote the development of recruitment strategies specifically for target populations

Several steps need to be taken to identify, develop and implement specific recruitment strategies.

- Define target populations in the context of their cultural, linguistic, and geographic characteristics. Include professional participation rates.
- Develop general recruitment strategies as a part of the content of Component 8, REIMBURSEMENT AND REGULATORY IMPACT ON RECRUITMENT AND RETENTION, which includes specific target population strategies.
- Develop specific methodologies to increase access to basic health services by populations with cultural or linguistic barriers. These methodologies should include:
    - Including target populations in ongoing educational recruiting. (see Component 7, JOINT STRATEGIES FOR RECRUITMENT AND RETENTION)
    - Insuring localized training for target populations. This includes policies and technologies which allow for on-site training to increase access to reduce costs. (see Component 7, JOINT STRATEGIES FOR RECRUITMENT AND RETENTION)
    - Implementation of educational loan and scholarship programs for both target and non-target population graduates willing to serve in target population areas. (see Component 6, ASSURING A FINANCIAL BASE FOR HEALTH SERVICES)

- Supporting of organizations which develop specifically-targeted strategies and programs. Include , and include such strategies and programs in the HPRP. (see Component 2, COOPERATION BETWEEN STATE AND FEDERAL GOVERNMENTS, AND OTHER ORGANIZATIONS AND ENTITIES)

- Promoting access to health career information and assistance by target group individuals and those planning to serve in target areas.

- Supporting local health personnel who serve as qualified mentors in their (target) communities supporting new health providers and providers-in-training. Support should also be given to organizations, such as the National Hispanic Mentor Recruitment Network, to recruit mentors in target communities.

- Promoting, through technical assistance, clinical training in community and migrant health centers.

It is essential to identify community requirements for culturally competent health personnel. The Statutory Committee, in cooperation with educational institutions and professional associations, will support programs to promote cultural and linguistic competency.

Benefits from implementation of target population recruitment strategies

- More health personnel providing health services to target populations.

- More target group health personnel providing health services in rural and urban underserved areas, and to target populations.

- Increased coordination of state and local financial resources in target population recruitment.

- Ability to link needs of rural and underserved areas to focused recruitment efforts.

- Lower cost to target population students for on-site health personnel training.

- Develop accessible training opportunities for target area populations.

- Expansion of educational opportunities for target populations through recruitment strategies.

RECOMMENDATIONS

5. The state should support health personnel recruitment. A primary effort should be the implementation of specific recruitment strategies to identify target population needs in rural and urban under-served areas.

5.1 The Statutory Committee shall promote the implementation of specific recruitment strategies for identified target populations.

5.1.1 The Committee shall identify target populations and shall work with appropriate organizations to assure implementation of specific recruitment.

5.1.2 Educational recruiting should reflect the needs of different target populations.

5.2 The state shall promote access to financial and other assistance to individuals interested in or now pursuing health careers.

5.2.1 The Statutory Committee shall assure the development and distribution of information on programs which support individuals seeking a health career. This information shall include financial support and mentoring programs. Distribution should be shared with Washington Occupational Information System, Employment Security Department, State Board of Community and Technical Education, the Office of Superintendent of Public Instruction, and others providing education and training.

5.2.2 The Committee shall work with the Office of Superintendent of Public Instruction, Employment Security, the Higher Education Coordinating Board, the State Board of Community and Technical Education, the Department of Health and the Area Health Education Centers to promote training of school counselors. This includes providing informational materials to schools on health services careers. Funding should be provided to support this activity.

5.2.3 The Committee shall assure that information on financial assistance is available to students coming from, or intending to serve in target areas.

5.3 The state shall support local health providers who serve as mentors to promising students in their communities.

5.3.1 The Statutory Committee shall assure that mentoring programs are included in the information given to individuals seeking a health career.

5.3.2 The State Office of Rural Health shall work in partnership with other state-wide entities to assure technical assistance and financial support to mentoring programs.

5.4 The State Office of Rural Health shall support clinical training during professional education through logistical assistance in arrangements and funding.

5.5 The state shall promote the use of communities and migrant health centers as sites for conducting career awareness and clinical training activities.

5.6 In developing policies that address access to basic health care, special emphasis should be given to cultural, linguistic and geographic characteristics of communities.

5.6.1 Resource allocation should support health personnel to populations without access to basic health services and to populations which have cultural barriers to care.

5.7 The Statutory Committee shall define and identify target populations.

5.7.1 The state agencies and education institutions shall recruit from and train individuals from target populations.

5.7.2 The state shall pursue methodologies, policies and technologies that allow on-site training of health personnel to increase availability and reduce the cost to students.

5.8 The Statutory Committee shall ask other state agencies to help identify the need for health personnel, with special reference to cultural competency.

5.9 The Statutory Committee, in cooperation with the Department of Health, shall work with the professional associations and educational community to promote programs to help health personnel become culturally competent.

6. ASSURING A FINANCIAL BASE FOR HEALTH SERVICES

Background

The ability to financially support health care services is a major part of assuring the continued training, and distribution of health personnel, particularly in rural and urban underserved areas. Many of these areas, small, low income population bases, and special cultural competency needs, have had a maldistribution of health care providers. This is due, in part, to the inability of those areas to financially support the mix and level of providers needed.

The Statutory Committee discussed several methodologies for provision of financial support. Final decision on all but the final recommendations are deferred to the 1995-97 Plan.

Methodologies for providing financial support to underwrite the provision of health care services in rural, urban underserved, and target population areas

- Increase reimbursement payments for providing specific health care skills in designated rural and urban underserved areas. (see Component 8, REIMBURSEMENT AND REGULATORY IMPACT ON RECRUITMENT AND RETENTION)
- Standardize payments so payment is based on service provided and not based on the skill level of the provider. (See Component 8, REIMBURSEMENT AND REGULATORY IMPACT ON RECRUITMENT AND RETENTION)
- Include an add-on financial incentive for Medicaid and Medicare providers serving a disproportionately large number of Medicaid, Medicare, or other designated populations.
- Provide tax credits for providers in rural and urban underserved areas.
- Implement a program of health care provider practice start-up subsidies. This can be done either through direct payment loan forgiveness. Health care providers would contract to practice in a specified area for a specified time. (see Component 3, PRIMARY AND MATERNITY CARE SERVICES DELIVERED BY A MIX OF HEALTH PERSONNEL PROVIDERS)

Benefits from assuring a financial base to support the provision of required health services in rural and urban-underserved areas

- Increased numbers of health care personnel providing services across the state.

- Increased numbers of health care personnel providing services in rural and urban underserved areas.
- More appropriate mixes of health personnel providing services in rural and urban underserved areas.
- Decreased cost of health services based on standardization of rates.
- Stability and longer length of service for health personnel providing services in rural and urban underserved areas.

RECOMMENDATIONS

6. Creating an adequate financial base to support health care services particularly in rural and urban underserved areas, is essential. It assures adequate distribution of health personnel across the state, and for target populations and areas.

    6.1 The Statutory Committee shall request legislation and General Fund support for a program within the Department of Health to assist health personnel in setting up practices in rural and urban underserved areas. This can be done through practice start-up subsidies in professions and geographic areas designated as "shortage" in the HPRP.

7. JOINT STRATEGIES FOR RECRUITMENT AND RETENTION

Background

There are a variety of health services provider recruitment efforts underway. They include programs at the University of Washington School of Medicine and the Northwest Regional Primary Care Association. The Department of Health's Office of Community Health also supports efforts through its Recruitment and Retention Clearinghouse, the Community Health Services Development program, and the contracts with the two Washington Area Health Education Centers.

These efforts have had a positive impact on recruiting. They could be even more successful if they were a part of an overall recruitment strategy which coordinated activities. For example, there is no existing data linkage which would coordinate the dissemination of information to potential primary and maternity care providers.

Efforts Needed to Promote the Development of Recruitment and Retention Strategies

The Statutory Committee will develop and implement an overall recruitment and retention strategy. Such a strategy It should increase the effectiveness of current programs, with particular emphasis on the supply of health providers in targeted areas and individuals from those areas. Local training programs need to be developed. The purpose of such local training programs would be to increase the availability of training and to reduce the cost to the student.

In addition, the Statutory Committee should develop the framework for coordination of specifically-targeted strategies being implemented by agencies, organizations, and institutions. Such overall strategies need to be tied directly to the educational institutions on-going program recruitment efforts. Retention strategies need to be developed in conjunction with overall recruitment strategies. (see Component 2, COOPERATION BETWEEN STATE AND FEDERAL GOVERNMENTS, AND OTHER ORGANIZATIONS AND ENTITIES)

The state needs to promote access to financial aid and other types of training assistance. The Plan should assure the development, maintenance, and distribution of information regarding such programs. Information should be developed with the Employment Security Department, the Office of Superintendent of Public Instruction, the State Board for Community and Technical Colleges, and other agencies. It should be disseminated as a cooperative effort with those and other agencies. Finally, the state needs to assure access to financial assistance information by students planning to serve in rural and urban underserved areas, and target groups. (see Component 5, RECRUITMENT EFFORTS TO RESPOND TO TARGET POPULATION NEEDS)

The state needs to support local providers who are willing to serve as mentors to students in their communities. The Statutory Committee should make available material on mentoring programs. The Department of Health's Office of Community Health should support communities and organizations establishing mentoring programs.

The state should promote the use of community and migrant health centers for clinical training and health career awareness activities. This can be done through technical assistance and funding.

Determining health personnel requirements for communities includes the need for health care providers who serve minorities and target groups. The Statutory Committee will use expertise from other state agencies to identify requirements for health personnel, particularly in the area of cultural and linguistic competency. The Committee will work with educational institutions and professional associations to develop programs to promote cultural and linguistic competency. (see Component 5, RECRUITMENT EFFORTS TO RESPOND TO TARGET POPULATION NEEDS)

Benefits from Implementation of Recruitment and Retention Strategies

- More health personnel providing services across the state.
- More health personnel providing services in rural and urban underserved areas.
- Increased use of state and local financial resources in recruitment efforts.
- Coordination of recruitment and retention activities by state, regional, and local agencies and institutions.
- Ability to link needs of specific geographic areas of state to specific recruitment efforts.
- Lower cost to potential students for on-site health personnel training.
- Development of accessible training opportunities for target group populations.
- Expansion of localized educational opportunities through health personnel recruitment strategies.

RECOMMENDATIONS

7. The state should support a wide range of strategies for health professions recruitment and retention. Recruitment efforts for students need to have multiple focuses directed towards the specific market segment or group being recruited. Examples of recruiting markets are culturally diverse and underrepresented groups, residents of rural and urban underserved areas, and individuals interested in second careers. There also needs to be an overall strategy for recruitment and retention. Each entity involved needs to be aware of their role in the process and of the overall recruitment and retention strategy.

Health personnel recruitment requires interventions across the education continuum, and should emphasize programs targeted to youth, undergraduates, second career adults, and culturally diverse and under represented groups.

7.1 The Department of Health shall use the Recruitment & Retention Clearinghouse within the Office of Community Health to support the following efforts.

7.1.1 To identify relief providers using locum tenens programs.

7.1.2 To support existing efforts of public and private non-profit entities to assess service gaps and to provide services.

7.1.3 To help communities identify financial assistance to support recruitment and retention activities.

7.1.4 To provide malpractice insurance to retired physicians serving in designated clinics, under current law. The Statutory Committee shall request legislation to expand this program to other primary care professionals who provide services without remuneration in designated clinics.

7.1.5 To provide assistance to communities seeking providers and to direct providers to opportunities to serve target populations.

7.1.6 To promote, in collaboration with the AHEC, the development of local health career information centers.

7.1.7 To continue to support the University of Washington's School of Medicine's

WAMI/Department of Family Medicine and Academy of Family Practice Pipeline Committee.

7.2 The Department of Health shall use the Cooperative Agreement Program to support community clinics in their recruitment and retention efforts.

7.3 The State Office of Rural Health shall explore avenues for expanding resources to remote communities to obtain Area Health Education Center services for enhancing recruitment and retention.

7.4 The Department of Health shall develop data linkages to coordinate the dissemination of information to primary and maternity care service providers.

7.5 The Statutory Committee shall seek increased funding for the state scholarship/loan repayment program and for the National Health Service Scholarship program.

7.6 The Department of Health will help develop community collaborative efforts with schools for recruitment and retention of health professions students.

7.7 The state and communities must recognize the importance of the family's needs in influencing an individual's decision to work in a targeted community. Strategies developed should include appropriate support to the spouse and other family members of health providers.

7.8 Rural hospitals and clinics and are one essential ingredient in recruiting and retaining health personnel. The state and communities should work to maintain the infrastructure of health delivery systems within rural communities.

7.8.1 The Office of Community Health shall continue to work with communities through state and federal programs to assure survival of the rural health delivery system infrastructure.

8. REIMBURSEMENT AND REGULATORY IMPACT ON RECRUITMENT AND RETENTION

Background

A review of the regulations and laws pertaining to the eight primary and maternity care professions included in the Plan. This was done to determine which of the laws, regulations, and policies had a positive or a negative effect on the supply and distribution of that profession. Input from professional associations, licensing staff, and other groups provided the widest possible review of the impact of these laws, regulations, and policies.

The review found that the regulatory atmosphere in Washington is perceived as positive. Some outdated and impractical aspects of professional regulation were identified. Other state requirements appeared to conflict with federal law. The Statutory Committee has determined it is necessary to recommend changes in those health professional regulations which are barriers to health provider practice. Improving state regulation would meet the commitment to reducing the impact of the regulatory process on access to training and licensing for health professionals.

State Law, Regulation and Policy

The Statutory Committee will work with legislative staff to draft modifications to laws identified as inhibiting access to health provider licensure and distribution. One suggestion has been that agencies requesting regulatory changes include a "profession supply impact statement." In addition, there is a need for a mediatory mechanism which provides an alternative to litigation concerning conflicts between licensing entities and individuals, employers, and community needs which are concerned with regulatory and/or policy requirements for health provider licensing.

The Statutory Committee will present the regulatory, policy, and administrative issues identified as negative influences on health care profession access to the appropriate licensing or disciplining board for review. Identification of these issues needs to be done in cooperation with the professional associations involved. The methodology should be developed for a regular review of law and policy relating to the licensing of health professionals.

The state should develop a mechanism for professional collaboration in the education, training, and practice of health care professionals. A neutral process could be established to develop recommendations on state law concerning professional practice issues on an objective and cooperative basis.

The Statutory Committee will undertake the following activities concerning legislative issues:

- Seek amendments to laws which inhibit access to the supply and distribution of health personnel.
- Seek legislation which would allow the use of national licensing examinations instead of state licensing examinations.
- Seek legislation to amend 18.71A and 18.57A RCW to allow physician assistants to have a single license not tied to a physician.
- Seek legislation to amend 18.120 RCW to extend sunrise reviews to all proposed legislation which would change the practice or credentialing of regulated professions.
- The Statutory Committee recommends implementation of regulatory, policy, and administrative changes by the Department of Labor and Industries, Board of Nursing, and the Department of Health. (see Recommendations 8.6 - 8.8)

Benefits from implementation of recommended changes to policy, regulation, and law governing state health personnel

- Better overall supply and distribution of health professionals through simplification and uniformity of requirements.
- Improved regulatory atmosphere.
- Removal of barriers to health career education and training opportunities.
- Removal of barriers to health professions practice.
- Creation of mediation mechanism (ombudsperson) between health provider and communities, and state licensing and regulatory functions.
- Increased number of health care providers with minimal commitment of financial resources.
- Abolition of outdated barriers to practice of health care professions.
- Regular policy overview of proposed regulatory changes through implementation of "profession supply impact statement" requirement.
- Consistency of state law concerning professional regulation with federal law.

- Simplification, without risk to public health, of administrative requirements for licensure and practice, improved interstate mobility for health professionals, and enhanced out-of-state recruitment.
- Legal responsibility for the provision of services would rest with the health care provider actually delivering the service.
- Extension of registration to perform midwifery services to all persons actually providing such services.

RECOMMENDATIONS

8. The state should maintain a regulatory environment which promotes the recruitment and retention of health personnel. This includes the development of health provider reimbursement policies which promote health care costs based on the service performed.

8.1 The Statutory Committee will review the Revised Code of Washington and the Washington Administrative Code to identify barriers to health personnel recruitment and retention. It will work with the legislature and state agencies to modify laws and regulations, consistent with public health and safety, which unnecessarily inhibit an adequate supply, use and distribution of health personnel.

8.2 The Statutory Committee shall request legislation to extend sunrise reviews under 18.120 RCW to all proposed legislation making changes in credentialing or practice requirements of regulated professions. The reviews shall include a review of the possible influence the changes could make to the supply, distribution or use of health personnel.

8.3 The Department of Health should establish a health services regulatory ombudsperson. The ombudsperson should assist communities, health personnel and employers by acting as facilitator of discussions to resolve concerns.

8.4 The Department of Health will work with out-of-state and other interested health provider employers, including the Department of Defense, to assure the smoothest possible transition to state licensing. This applies to health personnel entering the state or returning to civilian life. The Department of Health should seek federal grants to support this effort.

8.5 The Statutory Committee will request legislation to amend 18.71A and 18.57A to authorize physician assistants to obtain a single license to work under the supervision of any physician.

8.6 The Statutory Committee recommends the following regulatory, policy and administrative changes for action by the Department of Labor and Industries.

8.6.1 Eliminate duplication of licensing requirements in Washington Administrative Code (WAC) that cover worker compensation.

8.6.2 Health personnel licensed to provide a service should be given authority for direct reimbursement to their practice.

8.6.3 WAC 296-20-01501 should be modified to allow an Advanced Registered Nurse Practitioner and Physician Assistant to document medical care services provided.

8.6.4 WAC 296-23-900, or the appropriate RCW should be modified to allow a Advanced Registered Nurse Practitioners and Physician Assistants to file an accident report if they were the primary care service provider.

8.7. The Statutory Committee recommends the following regulatory, policy and administrative changes for action by the Board of Nursing.

8.7.1 Review issues related to the advance practice of nursing. This review should consider policy, rule or legislative changes relating to health personnel supply and distribution.

8.7.2 Board of Nursing staff should continue to participate actively in the development of a national model for an Advanced Practice Act. This will help equalize national standards and facilitate reciprocity.

Review of the national model after its adoption in September will be necessary to determine if active support is appropriate.

8.7.3 Determine the appropriateness of the 250 hour clinical requirement.

8.8 The Statutory Committee recommends the following regulatory, policy and administrative changes for action in midwifery regulation.

8.8.1 The Department of Health should consider pursuing legislation requiring the registration of all midwives. To protect the public, midwives should be included under the Uniform Disciplinary Act.

8.8.2 The midwifery statute should be reviewed by Professional Licensing Services' staff to ascertain if current policy restrictions in scope of practice are stipulated in statute or rule.

8.8.3 The Statutory Committee endorses the recommendation by Department of Social and Health Services Task Force on Home Births. Physicians, certified nurse midwives and licensed midwives who agree to function within the proposed low risk guidelines and participate in the quality assurance program for medicaid reimbursed prenatal and home birth service.

8.8.4 Pursue endorsement for midwives from other states. DOH should determine the feasibility of establishing pre-licensure standards to provide a formal method to meet Washington standards.

8.9 The Statutory Committee will present regulatory issues it identifies to the appropriate licensing or disciplinary board for review and discussion.

8.10 The Statutory Committee will request legislation to amend all health personnel licensing laws to remove restrictive provisions or provisions in conflict with federal law.

8.11 The Statutory Committee will request legislation to provide authority to use national examinations instead of a state examination.

9. SUBSIDIZATION OF MALPRACTICE INSURANCE COSTS

Background

The high cost of health provider malpractice insurance is an obstacle to the proper distribution of health providers across the state. It is a particular deterrent in rural and urban underserved areas. The state currently subsidizes malpractice insurance premiums covering retired physicians providing volunteer services in non-profit clinics.

Need to continue and expand state support for malpractice insurance subsidization

The high cost of malpractice insurance deters health personnel from practicing in rural and urban-underserved communities. In those areas the financial return from their practice is considerably lessened by the high cost of malpractice premiums. The subsidization of these premiums can create an important financial incentive to establish or continue a practice in those communities.

Benefits from continuation and expansion of malpractice insurance subsidization

- Increased numbers of health personnel providing services across the state.
- Increased numbers of health personnel providing services to rural and urban underserved areas.
- Potential lower total health care costs based on availability of regular preventative health care.
- Provision of additional incentive for health personnel to practice in rural and urban underserved areas.
- Continuation of volunteer services in non-profit clinics by retired physicians.
- Expansion of volunteer services provided from non-profit clinics by a full range of primary and maternity care providers.

RECOMMENDATIONS

9. The state should support programs to subsidize or to provide malpractice insurance to health care practitioners providing services to target populations and in designated areas.

    9.1 The Department of Health will assist rural and urban-underserved communities by purchasing malpractice insurance for retired physicians providing volunteer services in non-profit clinics. See Substitute House Bill 2337, 1992 session.

        9.1.1 Subsidy for malpractice insurance should be expanded to include other licensed health personnel serving targeted populations and areas.

10. EFFORTS TO REDUCE HEALTH PERSONNEL ISOLATION

Background

Health personnel practicing in target areas, particularly in rural areas, have limited access to continuing education courses, professional workshops, or career development activities. Development and implementation of such resources and activities would benefit both the rural health provider and the community.

In addition, providers attending such professional development activities may need a health care provider to substitute for them. Combined with long travel distances, this limits rural provider attendance and reduces the availability of new professional procedures in rural communities. It has the cumulative effect of limiting the individual professional skills of the provider.

The effects of rural isolation on the employment and educational needs of health provider's spouses and families need to be addressed as a part of recruitment and retention strategies.

Current efforts to alleviate professional isolation

There are some programs which alleviate health provider isolation in rural areas. Most of these programs are technology-oriented. The Regional Medical Library System provides current professional literature and resource materials through a computer network. The University of Washington MED-CON system provides an on-line consultation service to primary care providers. The Department of Health, through the Office of Community Health, helps to determine the need for training at the local level, and provides support for health provider conferences in the state. Some professional associations also provide limited continuing education and related services for their membership in rural areas.

Benefits from efforts to reduce health personnel isolation and increase rural provider continuing education and training opportunities

- Greater access by rural health personnel and their family members, to continuing education, career development, provider placement, and other resources.
- Improved level of individual provider skills available in target communities and rural areas.
- Potential for lengthened service time in rural areas by individual health care providers.
- Reduced need for frequent time-consuming recruitment efforts by rural communities to fill health care provider positions.

- Reduced stress and professional "burn-out" of rural health providers.

RECOMMENDATIONS

10. The state should support programs designed to reduce the effects of health care provider isolation and to meet the needs of placebound health providers and their families. Continuing education, locum tenens, communications, professional development, and health career development programs should also be supported. This will help to lessen the effects of provider isolation in remote and rural areas.

10.1 The Statutory Committee should encourage the activities of organizations which have established continuing education programs designed to meet the needs of geographically and professionally isolated health personnel.

10.1.1 The Office of Rural Health state-wide network should disseminate information on continuing education and professional training programs, and define local education needs. They should develop continuing education options in collaboration with educational institutions and professional associations.

10.1.2 Academic institutions, with teaching hospitals, clinics and the Office of Rural Health shall encourage the development of short term intensive training programs. These include mini-residencies, providing cost-effective opportunities for skills enhancement and creating linkages between isolated providers and larger regional systems.

10.1.3 The state should support the use of advanced technology to develop distance learning options. Increased use of existing downlink satellite, telephone conference seminars, interactive video, and computer assisted instruction should be funded.

10.2 The Statutory Committee will encourage the development of community-based clinical preceptors to link primary health care personnel to training programs. Academic institutions shall be encouraged to establish faculty development programs for community based clinicians/preceptors.

10.3 The state should provide additional funding to the Regional Medical Library System to improve access to current literature and resource materials, and to provide training in use of computer linkages.

10.3.1 Funding should also be provided to the Regional Medical Library to develop an electronic bulletin board service. This will help reduce isolation by providing information on such things as continuing education/placement opportunities, health care legislation, and health resources.

10.4 The state should support the availability of the MED-CON system of the University of Washington School of Medicine to all primary health care providers.

10.5 The state should encourage development of local, state and regional networks for education, consultation and peer interaction.

10.5.1 Communities participating in state funded Rural and Community Health Service Delivery projects should include this component for local recruitment and retention strategies.

10.5.2 The Department of Health's Office of Rural Health should continue to support conferences and other activities which promote information sharing and peer interaction.

10.6 The Statutory Committee should develop and distribute a soft-copy computer data base of state regional provider and community programs which obtain or maintain health personnel services. Updated regularly, the computer data base will be sent to schools, colleges, health providers, communities and others.

10.7 The state should encourage the use of available technology to reduce professional isolation through technical assistance and funding.

10.8 The state should encourage development and use of locum tenens programs to deal with professional isolation.

10.9 The Department of Health should support recognition programs for health personnel who continue to serve, and communities that have effective recruitment and retention programs.

11. ALTERNATIVE TRAINING SITES

Background

Alternative training sites are needed to provide a training environment different from the technology-intensive, multi-specialty setting most health professionals use. Since the end of World War II, there has been a steadily increasing concentration of training in large scale, urban medical centers. This development has gone hand-in-hand with increasing specialization and use of technology in American medicine. Concern was raised about the site of health professions education in the 1970's. At that time it became clear that the United States was producing too many specialists at the expense of primary care providers. Additionally, training was conducted in mostly urban environments, contributing to the shortage of practitioners in rural areas.

Questions were also raised about the quality of patient care in the large health sciences centers. While patients almost invariably received a high level of technical care, compassion was sometimes lacking. Several studies showed that poor, non-English speaking, or simply old persons did not fare well in the often impersonal environment of the health sciences center.

Neighborhood health centers, created as a part of 1960's social legislation, were perhaps the first example of alternative training sites. Although not developed to provide training opportunities for health professions students, they in fact served that purpose. They gave students the chance to interact with patients in an environment more conducive to good communication. Students could view the patient's health care problems within a larger community context.

Such centers, while community-based, were typically in an urban environment. While they removed the students from the medical center, they did not remove them from the cities.

One of the first nationwide attempts to reverse the geographic concentration of health professions training was the Area Health Education Center (AHEC) Program. The product of 1972 legislation, the AHEC created opportunities for health professions students to train in sites at some distance from the urban medical centers. In these satellite locations, students were often taught by primary care professionals.

Washington State needs alternative training sites for health professions students. Particularly needed are sites for nonphysicians and sites that can accommodate a number of different types of health professionals. Such sites serve several functions related to training.

- They create in students an affinity for primary care. Depending on the location of the site they encourage an interest in rural health care.
- They have the potential for providing interdisciplinary training opportunities.
- They expand the number of clinical sites available to health professions training programs.
- They are a source of care to underserved groups.
- They can provide training opportunities to community residents.

The Effect on Primary Care and Rural Health Care Recruitment

There is proof that students who train in alternative settings are more likely to choose primary care or rural locations. By giving students ample opportunity to train in community-based sites, such programs give students the experiential basis for well informed career decisions. In addition, subspecialty faculty may subtly disparage primary care by encouraging most students to think in terms of subspecialty medicine rather than primary care. The decline in interest in primary care has been attributed in part to the medical center influence.

Interdisciplinary Training

The hierarchical social structure of the medical center is not conducive to fostering the kinds of peer relationships required for interdisciplinary teamwork. Because innovative patterns of interaction may be more difficult in the medical center, alternative training sites have been seen as a more desirable location. Coincidentally, the Area Health Education Center (AHEC) has, as one of its functions, the promotion of interdisciplinary training opportunities.

Most health care reformers believe that the future health care system will rely heavily on health care teams. If physicians learn to work with other providers collaboratively, more effective teams will result. Washington State has no interdisciplinary training sites.

Access to Clinical Sites

A shortage of sites has already developed in the I-5 corridor for nursing students. Access to clinical sites could be a future problem for midwifery students as the number of programs expands in the state. Access to clinical sites acts as a major curb to health professions training expansion.

Service to Special Populations

Starting with Johns Hopkins in 1897, there has been a historical connection in the United States between health professions training and service to disadvantaged groups. In providing care to minorities, disadvantaged persons, or underserved groups, health professions students cannot limit themselves to the medical center environment. They need to interact with patients in community-based facilities or in places where patients live and work.

Access to Training Opportunities

Comprehensive training sites located in minority communities could provide both service and training to minority group members. A concrete example that is in the development phase is a Yakima branch of the Medex physician assistant program. By having a program in Yakima, close to a sizeable Hispanic population, the director hopes to train more Hispanic students as physician assistants. The other advantage to having on-site training is that the students would be less likely to leave their home community once they graduated. There is a strong correlation between where students train and where they practice.

RECOMMENDATIONS

11. The state should encourage the use of alternative training sites. These sites would provide training different from the technology-intensive, multi-specialty setting most health professionals use.

    11.1 Alternative training sites should respond to the needs of special population groups, whether defined by geographic location.

        11.1.1 Sites located in minority group enclaves should offer educational access to members of the local population.

        11.1.2 Alternative sites should provide additional opportunities for clinical experience to students who may have difficulty gaining access to large urban medical centers.

    11.2 The Statutory Committee will identify an association, agency or other entity to assess site availability, capability, and appropriateness. This assessment should be coordinated with an advisory committee consisting of representatives from the health professions training programs, the clinical sites, the Area Health Education Centers, and other interested parties.

        11.2.1 The responsible entity should facilitate access to sites on behalf of training programs.

        11.2.2 The responsible entity should facilitate planning among the various programs and sites.

        11.2.3 The responsible entity should serve as an information clearinghouse for site availability and capacity.

    11.3 Health professions training programs should develop linkages with community-based clinical sites. Ideally these linkages should be longitudinal throughout the students' educational experience rather than one-time, short-term electives.

    11.4 Health professions training programs should offer students early and continuous exposure to primary care and service to the underserved. These experiences should focus on a community orientation to primary care, seeing both the individual client and the community as "patients."

11.5 Health professions training programs should provide development for interested community-based faculty to enhance teaching and evaluation skills.

- 11.5.1 Health professions training programs should develop clinical teaching faculty career tracks.

11.6 Community-based training sites should provide interdisciplinary training.

- 11.6.1 The AHEC program should take a lead role in developing interdisciplinary training opportunities in community-based settings. That role would include locating sources of funding support.

11.7 Telecommunications programs should be used to enhance health professions training at community-based sites.

11.8 Provide funding to develop alternative training sites. Existing sites also need adequate support.

- 11.8.1 Resources should come from a combination of state, private sector, and federal funds.

12. NURSING ARTICULATION

Background

Nursing articulation is the process of students moving from one level of nursing education to another. Nursing education has made considerable progress toward creating a more articulated system, and it could be a model for other professions. The problem of educational articulation is by no means unique to nursing. In this phase of the Plan, nursing has received most of the attention because of legislative mandate. In the next phase, the articulation issues of other health professions will be examined and addressed.

The trend over time has been for nursing programs to increase the number of credits. The greater technological complexity of nursing has been identified as one factor. Also responsible are the increased demands on hospital nurses as a result of high patient turnover and shortened hospital stays. Community college advisory groups have responded by asking that ADN programs include more nursing courses. The greater need for both technical and communications skills has expanded the general education requirements, as well.

Given the number of unanswered questions raised in analysis of the credit hour requirements for the ADN degree, further study is still required and should encompass the following questions:

For each community college ADN program:

--how many credit hours of prerequisites are required?
--how many general distribution credits are required?
--how many nursing course credits are required?

Based on student data, how long does it take students to complete each ADN program?

What is meant by credit inflation, and is it a factor in high credit requirements?

To what extent does the rise in course requirements reflect the increasing complexity of nursing practice? Does it make sense to impose a lid of 108 credits if the additional course requirements accurately reflect nursing practice today?

Access to prerequisite courses

In the community college system there appears to be inadequate access to the prerequisite courses students need to become eligible for entry into LPN, ADN, and BSN programs. Students may have to wait a year or more to take these courses.

What courses come under the heading of "prerequisite" in nursing education? The actual courses may differ from program to program, but in general they are nonnursing courses such as mathematics, English, and biology. Often they are science courses requiring laboratory classes. It is also to be noted that one program's prerequisite may be another's standard part of the curriculum.

In addition, prerequisite courses are sometimes unavailable. There may not be enough sections of a given course to satisfy student demand. Or, the course may not be offered frequently enough. A required English course, for example, may be offered only one semester rather than both. Also at issue is how required courses are offered in temporal relation to each other. Often the courses a student needs are offered one a day throughout the week. The student who is trying to minimize time away from work would prefer a block format, i.e., all courses offered back-to-back on the same day.

Budget cuts are perhaps the main cause of inadequate access. Increasing student demand for health professions careers also puts pressure on declining educational resources. Faculty may be at fault, too, for being unwilling to offer courses in a format or at a time convenient to working students.

Since students in a wide array of health care fields are required to take the same courses--for example, anatomy and physiology--the problem of access will be a constant theme in the analysis of health professions education. It is not yet clear how large an impact access difficulties have on supply.

Validation of current knowledge and experience

Because of progress made toward creating a more articulated system of nursing education in Washington State, nurses no longer have to repeat coursework taken for previous degrees when they get their ADN and BSN degrees. Instead they have the option instead of taking tests to demonstrate current knowledge and skills. These examinations may be instructor created, but they are more likely to be standardized tests such as the ACT-PEP or the NLN's Mobility Examinations I and II.

In Washington, challenge testing is almost the only method nurses have to validate prior learning. The trend in several other states is to offer alternatives to testing, including include portfolio analysis, credit-in-escrow, transition courses, and, more recently, computer simulation.

It is somewhat ironic that the mechanism most frequently used to confirm prior learning should itself become an obstacle to educational mobility for nurses. Yet, apparently this can be a problem. The Colorado Articulation Plan, which bills itself as a "no testing" plan, states that such testing is expensive and time consuming and has the effect of discouraging many nurses from seeking advanced educational degrees. The National League of Nursing, a recognized leader in nursing education, labels Washington's reliance on testing "conservative"; it encourages states to experiment with other methods of granting credit.

LPN students who are returning to school for the ADN degree often have the option of taking transition courses in lieu of tests. LPN students who have taken the first year of an LPN-ADN ladder program automatically get credit for any nursing courses they have had, provided they return to the same program for their ADN degree. The use of challenge testing is most common at the next level where ADN students return for a BSN. Students cannot receive credit through direct transfer for nursing courses taken in associate degree programs. Nursing educators do not view lower division nursing courses as comparable to the upper division courses that students take in a baccalaureate program.

Portfolio analysis is probably the most well known alternative to testing. The National League of Nursing views it as an acceptable method for demonstrating skills and knowledge acquired in a classroom or work setting. The portfolio contains accumulated information about a student's experiences and accomplishments. Additionally, the information has to be structured in such a way that it can be translated into academic credit. In comparison to testing, portfolio analysis is less objective and has greater room for error. It can also be very labor intensive for faculty. A drawback from the student's perspective is that it may fail to demonstrate breadth of knowledge. For example, if a student's experience has been in the field of medical-surgical nursing but she has knowledge of other fields, the portfolio may reflect only the medical-surgical experience. With greater use of portfolio analysis and further refinement of the method, some of these limitations may be overcome.

A fairly new alternative to testing, featured in both the Colorado and Iowa articulation plans, is credit-in-escrow. In this case, a student is awarded credit for previous learning after successfully completing a certain number of courses. For example, in the Colorado plan, escrowed credit is put on the transcript after successful completion of one semester of full time nursing course work. The assumption is that the student had to have previously acquired certain skills and knowledge in order to pass the courses. The use of escrowed credit is predicated on a statewide articulation plan. Faculty at participating institutions have to validate each other's curriculum as a condition for using this testing alternative.

Computer simulation is a technique yet to be fully developed; it has, however, great potential for widespread use in the future. It relies on interactive video disk technology. While the technology is available, the testing software is still in a fledgling stage.

The Washington State Board of Nursing will be using computer simulation to evaluate the knowledge and skills of nurses who have let their licenses lapse. Although interactive video disk equipment is expensive, one can expect the price to come down as it has in the case of similar technologies. Because the interactive video disk is an excellent training as well as assessment tool, nursing programs are already acquiring the technology.

Obviously none of the techniques described above will replace multiple-choice testing as the primary method for validating previous experience. The intention is not to seek a replacement but to provide nurses with more options for demonstrating knowledge. Some nurses shun standardized tests because they don't perform well or have testing anxiety. Other nurses, who have just passed their licensing examination, see additional tests as redundant. Insofar as standardized testing is an obstacle to the professional advancement of nurses, it should not be the only method available for granting credit for nursing coursework.

RECOMMENDATIONS

12. The state should continue progress toward creating a more articulated nursing education system.

    12.1 The Higher Education Coordinating Board and the State Board for Community and Technical Colleges, advised by a broad-based committee, should study the issues and report to the Legislature within one year. The committee would include, at a minimum, representatives from associate and baccalaureate nursing program administration and faculty, state nursing associations, hospitals, and students.

    12.2 In the community college system, there should be greater access to the prerequisite courses that students need to become eligible for training in nursing or some other health profession.

    12.2.1 Community colleges should be encouraged to offer prerequisite courses back-to-back on the same day. Such an arrangement, referred to as a block format, increases opportunities for working students.

    12.2.2 Community colleges should be encouraged to offer prerequisite courses frequently within the calendar year.

12.3 An objective, valid, cost-effective, and easy-to-administer alternative to multiple-choice testing should be explored.

    12.3.1 The Higher Education Coordinating Board should request funding from the state Legislature for a pilot project to explore alternative means of challenge testing.

13. RECRUITMENT OF UNDERREPRESENTED GROUPS

Background

The recruitment of minorities to the health professions has been an issue for quite some time both nationally and in the state of Washington. The nursing profession serves as one example. In 1983, the Institute of Medicine recommended attracting more nontraditional students and minorities to nursing. In 1989, the Washington State Commission on Nursing urged that nursing organizations develop recruiting campaigns aimed at men and minorities. In 1990, the State Plan for Improving Access to Nursing Education asked that institutions of higher education more actively recruit men and people of color.

Lately, the issue of minority recruitment has received renewed interest because of figures showing high growth rates in the minority population. In 1991, the Association of American Medical Colleges announced a campaign to increase the number of underrepresented minorities entering first-year classes from 1,600 to 3,000 by the year 2000.

"Underrepresented" is a more encompassing term now being used to describe groups that have not achieved equitable access to health professions training. The term has gained in currency because it expresses the relative and dynamic nature of being a statistical minority in a health professions field. For example, men in general are not underrepresented in medicine, but men from rural areas are.

Whether the recruitment target is a minority student or a rural student, the strategy is much the same. It has four features: (1) an active approach, (2) early intervention, (3) long-term contact, and (4) an emphasis on retention.

Even the most aggressive recruitment campaign will be of little value if students fail to graduate. One way that programs could improve completion rates is to provide an academically supportive environment that includes counseling and remedial help.

RECOMMENDATIONS

13. The state should improve access to health professions education for groups whose representation in the health professions is significantly below their representation in the state's population.

13.1 Interest in the health professions should be increased among underrepresented groups. Low application rates for minorities would seem to indicate that not enough is being done to stimulate interest.

13.1.1 Professional organizations should develop special marketing strategies to appeal to underrepresented groups. State grant money should be made available to encourage creative approaches.

13.1.2 The state should support the recruitment activities of the Area Health Education Centers (AHECs) that promote student interest in health careers.

13.2 Encourage the expansion of early outreach programs.

13.2.1 Expand volunteer experiences in health care settings or paid summer internships.

13.2.2 Expand career information programs at middle and secondary schools for underrepresented groups.

13.2.3 Develop programs to increase student academic readiness. These might include summer enrichment programs combined with paid internships in health settings.

13.3 The University of Washington's Minority Students Health Sciences Pre-professional Program should be expanded to include other health professions.

13.4 Assistance should continue to be available to community college students in remediation programs who want to transition into professional programs, such as nursing.

13.5 Institutions and departments should explore the feasibility of creating an admissions policy which would expand the enrollment of underrepresented groups.

13.6 Institutions should emphasize retention programs for minority students in health professions training. Counseling and tutoring should be expanded.

13.7 Health professions programs should create more flexible programming sensitive to the cultural needs and learning styles of students.

13.8 Health professions programs should request funding for some of the recommended special programs for underrepresented groups.

  13.8.1 Health professions programs should be encouraged to apply for grant money to mount and maintain special programs for underrepresented groups.

14. EDUCATING MORE PHYSICIAN ASSISTANTS, ADVANCED REGISTERED NURSE PRACTITIONERS, LICENSED MIDWIVES, AND CERTIFIED NURSE MIDWIVES

Background

In the 1960's, concern about a doctor shortage stimulated interest in the development of alternative provider categories. Since then, physician assistants, nurse practitioners, and midwives have been making an increasingly important contribution to primary and maternal care access. While these health providers are no longer viewed as simply physician substitutes, there is considerable overlap between what primary care physicians and midlevel providers do. According to federal statistics, in some Health Maintenance Organization (HMO) settings 65% to 85% of physician office visits are delegated to nonphysician providers. It has been estimated that physicians working in combination with midlevel providers are 40% more productive.

The degree to which midlevel providers can substitute for physicians is determined by legal scope of practice. Compared with most other states, scope of practice for midlevel providers in Washington is quite broad. Both nurse practitioners and licensed midwives are autonomous providers. They have a duty to consult with physicians in difficult cases, but physician supervision is not mandatory. While physician assistants have the requirement of medical supervision, it does not have to be over-the-shoulder. Physician assistants and nurse practitioners both have prescriptive authority, contingent on additional training and limited in scope. Neither type of provider can prescribe controlled substances.

The use of midlevel providers has grown in part because of their cost effectiveness. Their salaries are typically half of what physicians make, and they are far less expensive to produce. In 1980, the training cost differential was estimated to be around $100,000.

Although the supply of physicians has increased dramatically in the nation, there continues to be a shortage of primary care providers. In Washington state, where midlevel providers have broad scope of practice, an obvious solution for these types of shortages is to produce more nurse practitioners, physician assistants, and midwives.

There are 11,000 physicians practicing in the state. This number contrasts with around 500 physician assistants, 60 midwives, and 2900 registered nurse practitioners. Since 1987, the University of Washington has turned out around 12 family nurse practitioners, 8 pediatric nurse practitioners, and 22 physician assistants each year. Washington state is a national leader in midlevel provider education. Several of its programs have attracted federal funding. Other programs in the state represent unique training models.

In terms of funding, Washington's midlevel practitioner programs are at a turning point. For example, the Federal Bureau of Health Manpower has notified the University of Washington that it will not continue to support its primary care nurse practitioner programs. Unless the state steps in to provide funding, the family nurse practitioner and pediatric nurse practitioner programs may fold. The Medex program, which has received a renewal of its federal grant, cannot be assured of funding after this grant expires.

Historically, the Health Professional Loan Repayment and Scholarship Program has been the only source of state funding specifically for midlevel provider education. If midlevel provider education is to continue at its present level, or expand, direct state funding will be necessary for the public programs.

Because of the crisis in maternal access, the state may decide to take an active interest in educating certified nurse midwives. Certified nurse midwives are also advanced registered nurse practitioners. They have prescriptive authority and some have hospital admitting privileges. There are fewer than 100 full-time equivalent (FTE) certified nurse midwives practicing in the state. No in-state school currently trains certified nurse midwives. Most certified nurse midwives practice in urban parts of the state.

RECOMMENDATIONS

14. Increase physician assistants, advanced registered nurse practitioners, and certified nurse/licensed midwives. More of these health professionals will need to be educated by the state's schools.

14.1 The state should take steps to increase the number of physicians assistants.

14.1.1 Provide direct program support and increased service-contingent loans and scholarships.

14.1.2 Expand the feasibility of community contracting for training slots by the Medex program.

14.1.3 Development of rural sites providing both didactic and clinical training should expand rural access to this training opportunity. Support should come from the State, the community, or a combination.

14.1.4 Develop an evening program for physician assistants at the University of Washington-Tacoma to expand educational access for underserved urban areas.

14.2 The state should provide greater support for the training of nurse practitioners.

14.2.1 The state should support the primary care nurse practitioner program at the University of Washington. The school of nursing is no longer eligible to renew its federal funding for the family nurse practitioner and pediatrics nurse practitioner programs. Alternative funding sources will be needed by these programs.

14.2.2 The Plan supports Intercollegiate Center for Nursing Education (ICNE) in its effort to get federal grant money for a family nurse practitioner program. The plan recognizes that the program will need an alternative source of funding if federal money is not available.

14.3 Increase the number of licensed and certified nurse midwives trained in Washington state.

14.3.1 The state should increase loan repayment and scholarship funds and support grant opportunities for additional funds.

14.3.2 The Seattle Midwifery School has contracted with Pacific Lutheran University School of Nursing to develop a nurse midwifery program. Community contracting should be explored as a funding source. The state should increase loan repayment and scholarship funds and support grant opportunities for additional funds.

14.3.3 A new Community-based Nurse-midwifery Education Program (CNEP) is educating nurse midwives in Washington. The state should increase loan repayment and scholarship funds and support grant opportunities for additional funds.

14.3.4 Establish a state-supported nurse midwifery program at the University of Washington.

15. RURAL TRAINING TRACK FOR MEDICAL STUDENTS

Background

In increasing the number of medical student graduates intending to serve in the rural areas of Washington State, no single strategy will suffice. For example, altering the medical school admissions process to favor rural students will not by itself assure a supply of rural physicians. The policy would fail if there were not enough students from rural areas interested in becoming physicians or if the students were not academically competitive.

Multiple, integrated, strategies are superior to any single approach. Those strategies should include:

- Recruiting students from rural areas of Washington State.
- Giving preference to rural students in the admissions process.
- Developing a program for rural students that reinforces interest in a primary care career.
- A health professional loan repayment and scholarship program with a rural service provision.

Having a rural background is one of the factors that predisposes a physician to want to practice in a rural area. From 1978 to 1986, the percentage of rural students enrolled in medical schools dropped by about one-third. This trend was primarily due to a declining applications rate. In Washington State, anecdotal reports suggest that rural residents are not applying to the University of Washington because they believe they have little chance of being accepted. Their perception has some basis in fact: Washington ranks low among the states in the likelihood a resident has of getting into the state medical school.

Because rural students may not be applying to the medical school in sufficient numbers, every effort should be made to stimulate interest in a medical career. Organizations such as the Washington Academy of Family Practice and the Area Health Education Centers (AHECs) are engaged in this activity. More coordination between groups is needed to avoid a piecemeal approach.

Rural students who do apply to medical school may not be as competitive as their nonrural peers. This may be due to the fact that secondary education in rural areas is often resource poor. Deficiencies at the high school level may adversely affect college performance. Any program to increase student competitiveness must therefore start early in the educational pipeline.

Although the state has a Washington Administrative Code (WAC) requiring the medical school to give preference to rural students, it allows the school to waive the requirement if no qualified students apply. Two actions are therefore needed:

- The medical school must include rural students among its preference groups.
- In coordination with community groups and other organizations involved in rural student recruitment, the medical school must develop a "rural training track."

The rural training track will have two phases: (1) a pre-medical school recruitment program and (2) a medical school program to reinforce interest in primary care. An excellent model for the rural training track is the program currently in effect for minority medical students. Contact is made with the students in high school. They are encouraged to think in terms of a medical school career. A selected number are given a tour of the medical center. Special summer enrichment courses are offered. Once accepted into medical school, the students have access to counselors and tutors. Their interest in primary care is closely monitored and reinforced. The principle of the "critical mass" is also followed. That is, there is a sufficient number of minority students chosen that no student need suffer from feelings of isolation.

A key ingredient in the success of the rural training track will be the quality of the academic counseling. Counseling or advising has repeatedly been identified as a weak link in the health professions recruitment process. As a part of the premedical phase of the rural training track, both high school counselors and premedical advisors should be given additional training and support.

The ultimate measure of success of the rural training track will be the number of graduates it produces for rural areas. The key determinate of whether a medical student practices in a given geographic area is not the medical school attended but the residency program selected. It will important therefore that the rural track graduates do their residencies in the Family Practice Affiliated Network.

RECOMMENDATIONS

15. More primary care physicians are needed for the rural parts of Washington. Because of the complex nature of the problem, a multi-faceted strategic approach should be developed.

15.1 Encourage the medical school to develop an undergraduate rural training track, with emphasis on recruitment. The University of Washington Minority Medical Education Program (MMEP) could serve as a model.

15.1.1 Working in concert with community organizations and professional groups, the school should increase the rural student applicant pool by stimulating interest in medical careers.

15.1.2 The school should explore the feasibility of creating an admissions policy that would expand the enrollment of rural students.

15.1.3 Develop a program that would reinforce interest in rural practice and primary care. It should include counseling, courses in rural health care, and primary care clerkships in rural areas. Academic advisors assigned to rural track students should have both a primary care orientation and familiarity with the rural health care setting.

15.2 The University of Washington should encourage active participation by community organizations and professional groups in both the recruitment and retention phases of the rural training track.

15.2.1 Local physicians should help identify promising students in their community and develop mentoring relationships with them. This should be accomplished through professional organizations such as the Washington Academy of Family Physicians.

15.2.2 Communities should be encouraged to sponsor students, in exchange for a commitment to return to the community to practice after completion of a residency program.

16. GEOGRAPHIC DISTRIBUTION OF RESIDENCY TRAINING

Background

Residency training programs are concentrated in the urban and western parts of Washington. For the specialty and subspecialty fields, this distribution is easily explained. The nonprimary care residency training programs, such as orthopedics and cardiology, must have high population density to guarantee enough patients so the residents will gain the experience they need.

While the primary care residency training programs have greater geographic flexibility than the specialty programs, nonetheless they, too, are skewed to the urbanized west. Of the six internal medicine programs in the state, only one is in the east, and that program is located in Spokane. The two pediatrics programs are both located in the Seattle-Tacoma region, as are the two obstetrics-gynecology programs. Of the twelve family practice residency training programs, one is in Spokane; the rest are in the I-5 corridor.

There is a high correlation between where residents train and where they practice. Thus, residency training becomes a tool for influencing the geographic distribution of physicians. Because residents provide patient care, they can help to alleviate a shortage of physician services in a particular region. Furthermore, since residents do not have a conventional work schedule but are on duty seven days a week and 24 hours a day, they can have a substantial impact on the availability of patient care.

In developing a strategy to assure geographic distribution, the focus should be on family practice rather than on the other primary care fields. The affiliated network of family residency programs clearly has the greatest potential for expanding into the rural and eastern parts of the state. For instance, plans are already underway to reactivate the residency program in Yakima in July 1993.

It is less difficult for family practice to create more residency slots in rural areas because most care in rural areas is provided by general practitioners and family physicians. Because family physicians are trained to take care of the full age continuum they can substitute for internists, pediatricians, and obstetrician-gynecologists.

Despite the impressive commitment that the affiliated network has made to producing more primary care physicians for rural areas, more could be done to achieve a more equitable distribution of residency resources between the eastern and western parts of the state and the rural and urban areas. The reopening of the Yakima program is a start. There is also some discussion of creating a rural training track that would have Yakima as its base of operations. At some time in the future, another residency program may have to be developed.

Before any more expansion is contemplated, however, state funding will have to realistically reflect program cost. State funding has not kept pace with network expansion thus far. This has resulted in a per capita decrease in state support of family practice residency training. Currently, the affiliated network needs about $1.1 million a year in additional funds to develop the Yakima and Olympia programs and to increase coverage for the balance of the programs. The Department of Family Practice has asked for this amount in a supplemental budget request.

Any demand for a more equitable geographic distribution of residency training programs must be balanced against the absolute need to maintain training quality. However important from a public policy point of view, service and geographic availability are incidental to the main objective of residency programs education. Residents improperly trained would expose patients to an unacceptable level of risk. While the geographic configuration of residency training programs may have an effect on the future availability of physician services, one cannot expect residents to be the solution for the physician shortage in certain rural areas.

RECOMMENDATIONS

16. Efforts to achieve a better geographic balance of residency training programs should be focused on family practice.

    16.1 Before expanding the number of sites in the Affiliated Network of Family Residency Programs, the state should assure adequate levels of support for existing and already planned programs.

    16.2 The state should designate resources to retain the Rural Training Track, an experimental program based in the Spokane residency program.

        16.2.1 A second Rural Training Track, based in the Yakima residency program, should be considered after the residency program has stabilized in five to ten years.

    16.3 While the current geographic imbalance in the affiliated network can be partially redressed by expanding the Yakima and Spokane programs, it seems likely that another residency program will be needed east of the Cascades. Its location should be determined by the Department of Family Practice.

        16.3.1 An expansion of this nature cannot be accomplished with current resources. The Legislature should work with the residency network and the Department of Family Practice to identify resources.

17. TELECOMMUNICATIONS INITIATIVES FOR PLACEBOUND HEALTH PROFESSIONALS

Background

Distance learning programs help to overcome the problem of geographic access for health professionals in remote locations who want to advance or stay current in their fields. The availability of learning opportunities may be an important factor in determining whether a health professional remains in a rural location. One of the chief concerns of primary care providers in rural areas is keeping up-to-date with the rapidly changing medical knowledge base. Their urban-based colleagues have greater opportunity to stay on top of new developments because of peer interaction and local access to educational resources.

A placebound student is by definition someone who cannot relocate to attend college. Health professionals in remote locations cannot take time away from family and work to take classes at an institution some distance from where they live. The problem may be compounded by heavy practice demands if they are the only provider in their geographic region.

Although distance learning is often equated with telecommunications, that is only one form of distance learning. Distance learning encompasses a spectrum of techniques from traveling faculty to correspondence courses. The modalities that have captured recent interest, however, have a technological component. These include microwave systems, fiberoptic systems, satellite-based systems, and videotape.

While there is no doubt that distance learning is a valuable tool in providing educational access to rural and other types of placebound students, controversy exists. Questions have been raised about the type of technology used, the cost-effectiveness of the technology, the quality of the educational programming, and the appropriateness for teaching clinical material. There is no perfect distance learning modality. As models, all approaches have disadvantages as well as advantages. Thus, while one technique might be suitable for a particular program given the objectives that same technique might be wrong for a program with different objectives.

Among the various alternatives, the telecommunications system best suited to reaching a rural population is satellite. Although satellite does not have interactive capability it does feature one-way video and two-way audio. Washington currently has in place downlinks at each community college, as well as numerous other sites such as school districts and hospitals, and uplinks at University of Washington, Washington State University, and Eastern Washington University. Programming could be produced or received at any of the latter locations and transmitted to the downlink sites. The major drawback is cost: An hour of satellite programming is $500.

While the real future for distance learning probably lies with advanced interactive systems, there is a role at present for simpler and less costly approaches such as videotape.

The Department of Information Services, in consultation with other state agencies, is currently reviewing telecommunications systems for best fit with the higher education system. While it would be impractical for health professions training to have a telecommunications system of its own, any system available to higher education should also support health professions training.

In the meantime, two exemplary nursing programs require legislative support. Without funding, the University of Washington will lose its Project 2000 program. The program has been supported with money from the Western Washington AHEC, the Safeco Foundation, and Olympic Memorial Hospital. The Intercollegiate Center for Nursing Education (ICNE) will need operating funds for its Wenatchee baccalaureate program. By funding the nursing program, the state will derive greater benefit from the extension of Washington Higher Education Telecommunications System (WHETS) to Wenatchee. The Intercollegiate Center for Nursing Education also requests the extension of WHETS to Yakima to both support its basic baccalaureate program and reactivate its registered nurse baccalaureate program. With WHETS access at the Yakima site, ICNE might be able to expand the number of basic baccalaureate slots from the current level of ten. In addition, registered nurses in Yakima would no longer have to travel to Tri-Cities to complete their baccalaureates.

RECOMMENDATIONS

17. Establish a distance learning network that would support health professions training.

    17.1 Any effort to create a distance learning network should involve coordination among the affected educational institutions and state agencies. These include: the University of Washington, Washington State University, the comprehensive universities, the community colleges, the independent colleges, AHECs, the Higher Education Coordinating Board, the State Board for Community and Technical Colleges, the Department of Information Systems, the Department of Health, the Superintendent of Public Instruction, and the Department of Social and Health Services.

    17.2 Through existing resources such as the Communications Technology Center for Community and Technical Colleges, develop programming for physician assistants, licensed midwives, nurse practitioners, primary care doctors, and nurses. The emphasis should be on reaching placebound students or practitioners.

        17.2.1 A consortium of health professions schools and programs should explore, and apply for, private sources of funding.

        17.2.2 Explore direct state funding and technical assistance.

    17.3 Consider alternatives for the short term solutions while developing a network approach.

        17.3.1 Fund the University of Washington Nursing School's Project 2000 program.

        17.3.2 Provide operating funds for ICNE's BSN program at Wenatchee made possible by the extension of WHETS.

        17.3.3 Authorize extension of WHETS to Yakima to support ICNE's baccalaureate programs.

18. NURSING FACULTY SHORTAGE

Background

Nursing programs at all levels, from high school nursing assistant programs to university graduate degree programs, report difficulty recruiting faculty. While the problem was recognized by the State Plan for Improving Access to Nursing Education (Higher Education Coordinating Board, 1990),it may have gotten worse because of an increase in the number of nursing programs.

The production of faculty has not kept pace with rising demand. An indication is that nursing programs appear to be competing for existing faculty, and at times one program's gain has been another's loss. Thus any new programs, while increasing access to nursing education for Washington's residents, have also put additional pressure on the available supply of nursing faculty.

The shortage of faculty can pose a major obstacle to the production of nurses. When nursing directors were asked in the inventory survey whether they would increase enrollments, some said they would if they could overcome the difficulty of recruiting faculty. The faculty shortage is thus an infrastructure problem that cannot be ignored.

Despite the increasing number of master's degree programs in the state, not enough master's prepared nurses are being trained to assume faculty positions. There is an insufficient number of master's level programs in nursing specifically designed for training teachers. One suggestion has been to create certificate programs in teaching.

Like health professions shortages in general, the shortage of master's prepared faculty may have a geographic element. Programs in the nonmetropolitan areas may have greater difficulty attracting master's prepared faculty because master's degrees are offered only at institutions in the I-5 corridor and in Spokane. The graduates of such programs are likely to remain in the metropolitan regions of the state.

The number of advanced degree programs and the interest of nurses in pursuing advanced degrees have a direct bearing on the potential supply of nursing faculty. However, having a large number of nurses with advanced degrees in the state does not by itself guarantee an adequate supply. Salary levels for faculty may be a direct determinant. Like professions in many fields, faculty salaries in nursing suffer in comparison with what private industry pays. Most nurses who have the credentials to teach choose to practice because they can earn substantially more money. Because of the nursing shortage, salaries for staff and administrative nurses have risen dramatically.

The obvious answer to the problem would seem to be to raise nursing faculty salaries so that they are more competitive with what the private sector can offer. Community colleges, however, are constrained by collective bargaining agreements from creating too large a payment differential between faculty in different fields. Community colleges have more salary flexibility in the recruitment of part-time faculty. They can offer qualified nurses competitive salaries partly because they don't have to pay for expensive benefits such as health insurance. A part-time faculty position might be attractive to a nurse who gets health insurance as a clinical job benefit. In the universities salary levels for nursing faculty are not much higher than those in the community college system indeed, at least one university, they are less.

Salary alone does not attract nurses to teaching. It is more likely that adequate salary makes it possible for nurses who desire to be teachers to realize their ambition.

RECOMMENDATIONS

18. The state needs to address the faculty shortage as a serious infrastructure issue affecting the future production of nurses. Nursing programs at all levels, from high school nursing assistant programs to university graduate degree programs, are having great difficulty recruiting faculty. As higher education has responded to the need for more nurses by creating more nursing programs, demand for faculty has increased. The supply of masters and doctorally prepared nurses has not kept pace with demand.

    18.1 Nursing faculty salaries, especially at the community colleges, are not on a par with nonfaculty salaries. Nurses who are both qualified for and interested in teaching are dissuaded from becoming faculty by the relatively low salaries. Explore options for raising faculty salaries so they are more competitive with the industry.

    18.2 In masters-level programs, more emphasis should be given to developing teaching skills. The emphasis to date has been on turning out clinical nurses with administrative or advanced clinical skills. One option would be for programs to develop a certificate course in clinical instruction.

19. HEALTH PROFESSIONAL LOAN REPAYMENT AND SCHOLARSHIP PROGRAM

Background

The Health Professional Loan Repayment and Scholarship Program is the latest in a series of legislative initiatives to link financial aid with service in shortage areas. A component part of House Bill 1960, the program represents the amalgamation of three separate programs: The first, the Nurses Conditional Scholarship, was established in 1988 in response to a shortage of licensed nursing staff. In 1989, the legislature authorized the creation of the Health Professional Loan Repayment Program for primary care providers willing to serve in shortage areas. Eligible professionals were allopathic and osteopathic physicians; physician assistants; nurses, including certified nurse midwives; and dentists. In 1990, as a legislative initiative to expand rural health care opportunities, the Rural Physician, Pharmacist, and Midwife Scholarship Program was established.

By 1991, Washington State had a financial aid policy for health professionals that rather resembled a patchwork quilt. A formal process for determining which professions were eligible for loan repayment or scholarships was missing and the approach had been rather inconsistent. For instance, physician assistants and dentists had access to state-supported loan repayment but not to scholarship. Conversely, pharmacists and licensed midwives had access to state financed scholarships but not to loan repayment.

RCW 28B.125 removed this inconsistency by creating one consolidated Health Professional Loan Repayment and Scholarship Program and by making inclusion of professions an objective, data-based process. The process is as follows: The Department of Health is to determine which professions are in short supply. Its decision is to rest on supply data that it gathers in a comprehensive survey of all health professions in the state. The shortage professions will then be reviewed by a committee using a set of criteria to be established by the Health Professional Loan Repayment and Scholarship program advisory committee. Any health profession that passes the test of being in short supply and meets all of the criteria during the review process, including those currently represented by the program, becomes eligible for both loan repayment and scholarship aid. Conversely, if the data indicate that a profession is no longer in that category, it would be removed from the list of professions served by the program.

Current (91-93 biennium) funding levels for the loan repayment and scholarship components of the program reflect its evolution. The combined scholarship part (Nurses Conditional and Rural) has a total funding level of $450,000 available for scholarships, and loan repayment, around $250,000 which includes federal funds.

As a vehicle to effect change in the practice locations of health professions, scholarships have fallen into disfavor. Recently, for example, the National Health Service Corps, an important source of federal funding, decided to put less emphasis on scholarships. The main problem with scholarships is that they may be given to students far away in time from point of entry into practice. In addition, even though a community has an urgent need for a practitioner, it may have to wait several years--until training is completed--to derive the service benefit from a scholarship recipient. This would be particularly true of professions with a long preparation time, such as physicians.

In the case of loan repayment, health professionals have completed their education and are about to enter practice. They are likely to have a clearer idea of what service in a shortage area entails. Furthermore, unlike scholarships, loan repayment is directly service contingent. Loans are paid off as, not before, practitioners render service.

While loan repayment may be more effective than scholarships in getting a health professional to a shortage area, scholarships remain an important vehicle for getting minorities and disadvantaged students into health professions training. At some private institutions, health professional scholarships are the only means of financial aid available to their students. Additionally, other forms of state financial aid are not available to students in some graduate training programs. For these reasons, they deserve continued funding.

For the present, however, loan repayment should receive priority for funding. Both approaches should continue to be carefully evaluated for comparative effectiveness.

Although it may be difficult to do a shortage estimate for naturopathic doctors, consideration should be given to including them in the Health Professional Loan Repayment and Scholarship Program. Because they function largely as primary care givers, it seems reasonable to make them eligible for loan repayment and scholarships, given that primary care providers are in short supply. If, however, naturopathic medicine is determined to be a shortage profession, it would have to meet the review criteria of the advisory committee before inclusion in the Health Professional Loan Repayment and Scholarship Program.

Naturopathic students who are also taking courses to become licensed as midwives have been eligible for scholarship support under the Rural Physician, Pharmacist, and Midwife Program. Because midwifery courses are a part of the four-year curriculum leading to the ND degree, and most students elect to take them, it seems artificial to distinguish between naturopathic doctors who are and are not midwives for the purpose of inclusion in the Health Professional Loan Repayment and Scholarship Program.

Increased funding levels for the Health Professional Loan Repayment and Scholarship Program are needed. The program is expected to play a vital role in influencing the distribution of health care providers in the state. It may be the most important tool the state has for inducing health professionals to practice in shortage areas. The Plan has asked for the increased production of physicians from rural areas, midwives, physician assistants, and advanced registered nurse practitioners. Increased production alone, however, won't solve the manpower shortages unless there is a vehicle for guaranteeing practice in shortage areas. Accordingly, the health professional loan repayment and scholarship program should be expanded to accommodate an increased number of students.

RECOMMENDATIONS

19. Increase the funding for the health professional loan repayment and scholarship program to assist the state in deriving the optimum benefit from its investment in training programs.

    19.1 Both the Health Professional Loan Repayment and Scholarship Programs need additional funds. Because of its immediate effect on delivery of health care services, loan repayment should have priority for additional funding of these programs.

    19.2 Naturopathic medicine should be added to the list of professions eligible for consideration under the Health Professional Loan Repayment and Scholarship Program until it can be determined from data collected that the profession is not in shortage or does not pass the criteria review.

    19.3 Currently, the Health Professional Loan Repayment and Scholarship program is one of the few ways that the state can contribute to health professions training in the independent institutions. Additional money will be needed if the state is to have a greater impact on the practice locations of all students.

20. OSTEOPATHIC PHYSICIANS IN THE WICHE PROGRAM

The Plan supports the inclusion of osteopathic medicine in the WICHE program for Washington state. Through its Professional Student Exchange Program, WICHE enables students in 13 western states to enroll in out-of-state professional programs when those fields of study are not available at public institutions in their home states. The tuition students pay is substantially lower than the level they would have to pay if they were not participating in the WICHE program. This tuition advantage is available only to students who are in fields their states agree to support. Optometry is the only professional field that Washington currently supports. Along with optometry, osteopathic medicine is one of 15 professional fields available through the Professional Student Exchange Program. Washington residents, however, who wish to become osteopathic physicians must go to another state for their education and pay the full tuition.

While Washington has no school of osteopathic medicine, it does have a medical school. Students in Washington state who aspire to a career in medicine may have difficulty getting into the medical school because only 120 slots are available for more than 500 state resident applicants.

Minority students and students in the rural areas may be particularly disadvantaged in the competition for scarce medical school slots. One avenue of opportunity for students is osteopathic medical education. Approximately one third of the Washington residents attending osteopathic medical schools are at COMP.

As a participant in the Professional Student Exchange Program (PSEP), COMP gives preference to WICHE-certified students, that is, academically qualified students who are certified by the WICHE program in their state as being state residents. Although COMP has a selective admissions process, being WICHE-certified gives a student a competitive advantage.

Washington residents who attend COMP usually return to Washington to practice. To guarantee return, Washington could institute service payback. Although WICHE frowns upon using measures that it deems "punitive," other states have used this tool.

In 1990, WICHE support paid for 2/3 of tuition at COMP, which amounts to about $40,000 for the four years. This compares with the $130,000 a student would have to pay in principal and accrued interest if he got a Health Education Assistance Loan (HEAL) with a 25-year payback.

Students in Washington state who pursue an osteopathic medical education are eligible for the Health Professional Loan Repayment and Scholarship Program. The current level of support for the program, however, falls far short of that required to finance the educations of even a modest number of osteopathic physicians. Apparently, there is also an inconsistency between including osteopathic physicians in the scholarship and loan repayment program and not providing funding through the WICHE mechanism. The willingness to provide state financial aid to osteopathic physicians would seem to indicate that the value of their contribution to health care access is recognized by the legislature. And yet the legislature has proved itself unwilling to subsidize educational cost through WICHE.

Including osteopathic medical education in Washington's WICHE program essentially expands educational opportunity for Washington state residents who aspire to a medical career. Through WICHE, COMP provides much the same benefits to Washington state residents that WAMI provides to residents in Alaska, Montana, and Idaho. Washington residents get preference in the admissions process and they get help with the cost of tuition. In both cases, because the home state is subsidizing their medical education, the students have a moral, if not legal, obligation, to return to their state of residence to practice.

RECOMMENDATION

20. The state should appropriate funding for osteopathic medicine in the WICHE program, thereby recognizing the importance of osteopathic physicians in primary health care, and creating more medical education opportunities for state residents.

III. SUPPLY, DISTRIBUTION, NEED AND DEMAND

SUPPLY, DISTRIBUTION, NEED AND DEMAND

INTRODUCTION

RCW 28B.125 mandates that the Health Personnel Resource Plan (HPRP) identify the number, types and location of health care professionals required to meet the state needs. As noted earlier in this report, this initial phase of the HPRP concentrated on eight primary and maternity care providers: physician and surgeons, osteopathic physician and surgeons, naturopathic physicians, licensed midwives, advanced registered nurse practitioners, physician assistants, registered nurses and licensed practical nurses.

Data Sources and Parameters

The basic data-set used for supply analysis was a survey mailed to each licensee in the eight professions noted above. The survey information was used to develop individual practitioner profiles. It also provided information on the composition, number and location of the current health provider workforce.

Although response rates were high for survey research, 53% to 79%, the individual practitioner profiles in the current stage of development is insufficient to answer supply questions at the substate level. They also do not by themselves identify requirement needs.

At the request of the Department of Health, a data consultant from the University of Washington analyzed this survey information in conjunction with the American Medical Association's Masterfile data to corroborate survey results.

Using all this information the database provides a more accurate view of the supply picture than previously available. However, additional information was necessary to accomplish the demand/need analysis.

Information used in assessing the need and demand for health personnel included:

- 1991 American Medical Association Masterfile Data
- 1992 Department of Health Report on the Estimates of Washington State's Medically Uninsured
- 1990 Division of Medical Assistance Needs Assessment Data Project Report
- 1991 Indian Health Data Book

- 1992 U.S. Public Health Service National Health Service Corp. Vacancy Listing
- 1990 Department of Health Survey of Nursing Demand/Shortage Statewide Report
- 1992 Department of Health Health Professions Shortages Data
- 1992 Department of Health Survey of Migrant and Community Health Clinics

Additional information on these sources and a listing of other reports/sources that were reviewed are included in the appendices.

Future Data Needs

There has been insufficient time and resources to analyze all possible requirement determination methodologies. Nor has a set of definitions, policies, and methodologies specifically appropriate to Washington state been developed. This will be an ongoing effort.

For the 1995-1997 Plan, the Department has refined its individual practitioner profile survey to improve response rate and quality of the survey data. This was accomplished with the assistance of health professionals and data consultants from the University of Washington and by mailing surveys with license renewal notices. To generate the data necessary for a complete substate analysis, a response rate approaching 100% is needed. A legal requirement that licensees complete the survey as part of their license renewal process may be requested if response rates remain too low.

Data Reported

The following sections summarize supply, demand, distribution and requirement data for the eight health care professions. It describes primary and maternity care providers; nursing personnel; and underserved service areas.

For the purpose of this report, the following definitions (adopted from the Bureau of Health Professions) are used:

Demand:	The number of jobs that can be financed with current or future funds (an economic term).
Need:	The number of persons in a field who will be required to produce a given level or amount or service judged to be desirable (a social term).
Requirements:	The number of health professionals necessary to provide health services to a population. The

magnitude and composition of the requirements are specific to: the population; the level, intensity, and quality of the health services for the delivery system; and to the modes of health professional utilization prevailing (or presumed to prevail) at a given time and place.

PRIMARY & MATERNITY CARE PROVIDERS

Description and Findings

BACKGROUND

For years the legislature has been concerned that certain health care providers are in short supply. During the summer of 1990, the Senate Committee on Health and Long-Term care studied the problem of health provider shortages, and evaluated the possibility of taking a more comprehensive approach. The Health Personnel Resource Plan was established by the legislature to identify shortages and develop comprehensive solutions.

Anticipated changes to the delivery system that come from any health care reforms will necessitate that health personnel supply and distribution be appropriate. These findings may assist policy makers determine adequacy of health personnel.

DESCRIPTION

Comparison of practitioner surveys and American Medical Association's Masterfile data were used to aggregate data on the various providers. This data gives information on primary and maternity care providers.

Data bases were evaluated for indicators of health personnel requirements at the state, county and sub-county areas levels state. The following region and county groupings were used:

Region:

Eastern Washington counties, (except Spokane)
Western Washington counties, (except King, Pierce, Snohomish)

County:

Spokane
King
Pierce
Snohomish

Data assessment for primary and maternity care providers was accomplished by using the following comparisons:

Full time equivalency (FTE), by county and subcounty areas:

Physician/Surgeon, Osteopathic Physician, Naturopathic Physician, Physician Assistant, Advanced Registered Nurse Practitioner, Midwives.

Full time equivalency (FTE), by Primary Care Specialty:

Family practice, general practice, general internal medicine, obstetrics/gynecology, pediatrics.

Average number of patient visits by county and subcounty:

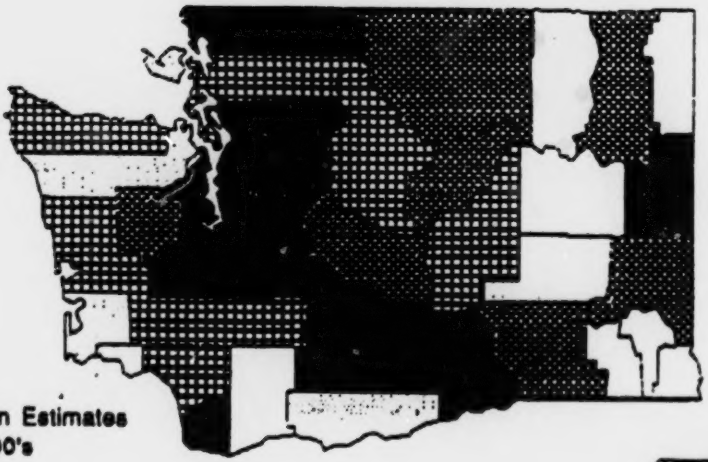
Primary and maternity care providers, (MD/DO/PA/ARNP/MDW)
Average number of patient visits by primary care specialty, (FP/GP/Gen IM/OB/GYN/PEDS).

Population to provider Full Time Equivalency (FTE) Ratios:

Primary and maternity care providers
Primary care specialty
Mix of providers

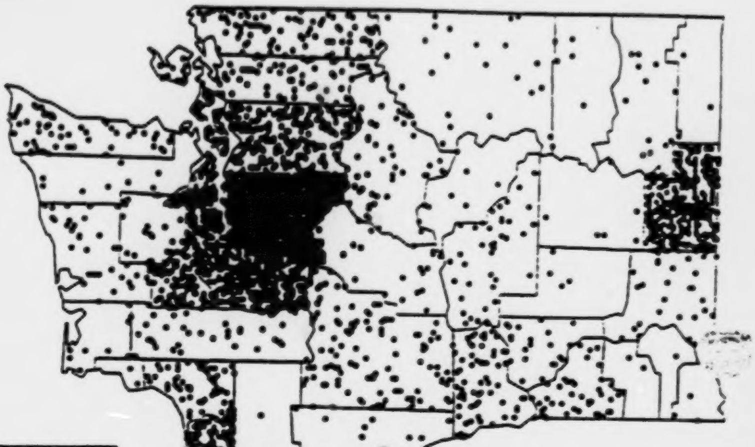
Comparison of these data are presented in Exhibits 1-5.

Exhibit 1

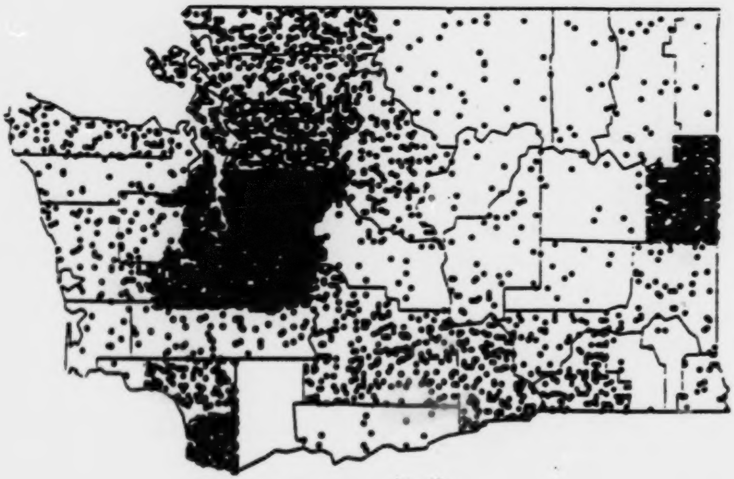


1991 Population Estimates
in 1000's

- ☐ 1 to 10
- ☐ 10 to 25
- ▩ 25 to 50
- ⊞ 50 to 100
- ■ 100 to 1572



DISTRIBUTION OF PRIMARY CARE MDs
1991 AMA MASTERFILE



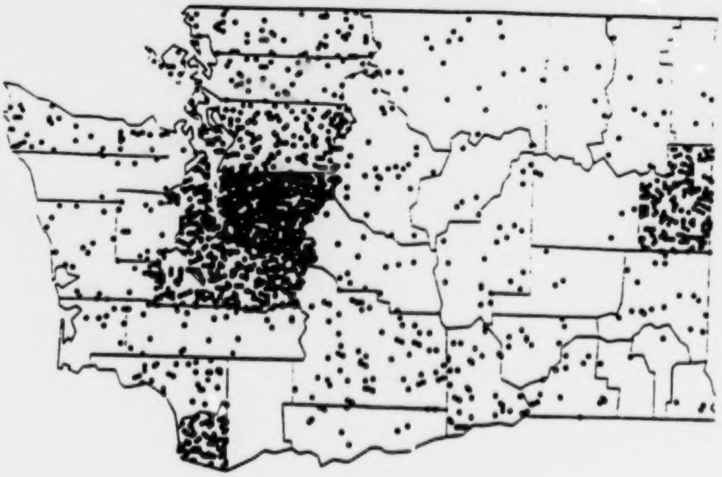
MD DISTRIBUTION
1991 AMA MASTERFILE

POPULATION ESTIMATES AND DISTRIBUTION OF PRIMARY CARE PROVIDERS AND ALL MDs

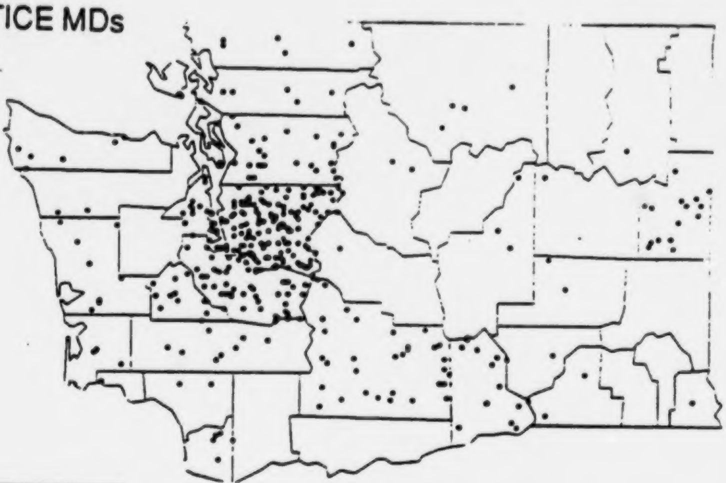
Each Dot = 1.00

129

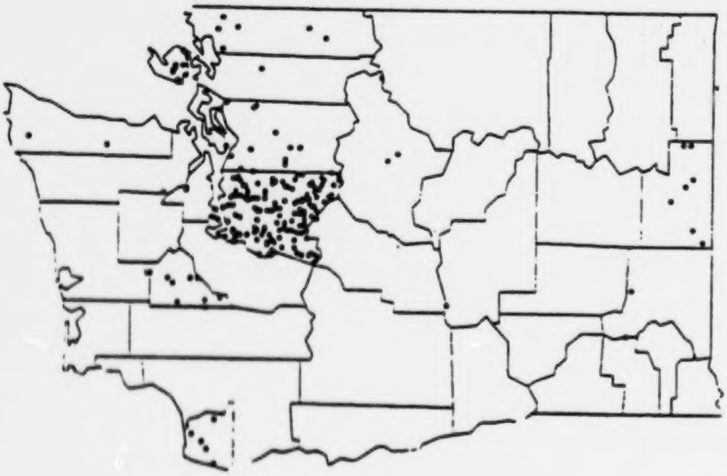
Exhibit 2



DISTRIBUTION OF FAMILY PRACTICE MDs
1991 AMA MASTERFILE



DO DISTRIBUTION
1991 ROSTER OF LICENSED DO'S

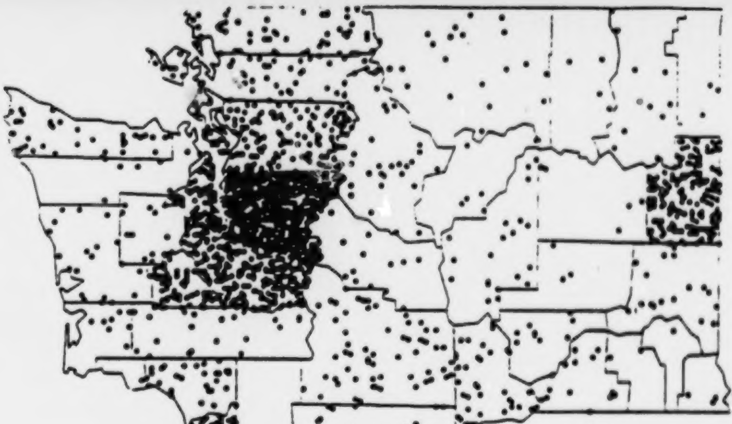


ND DISTRIBUTION
1991 ROSTER OF LICENSED ND'S

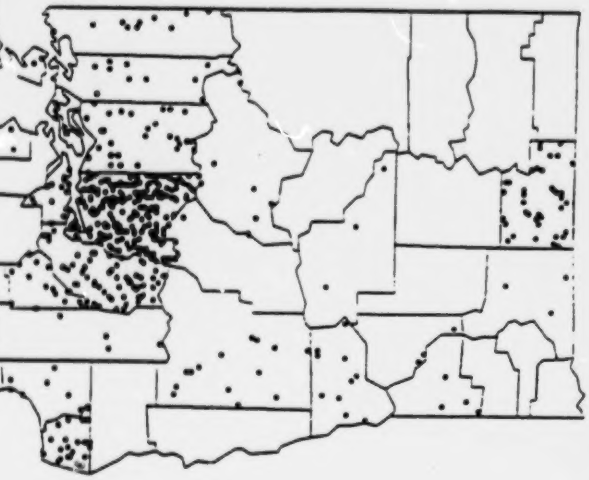
**DISTRIBUTION OF
PRIMARY CARE PROVIDERS**

Each Dot = 1.00

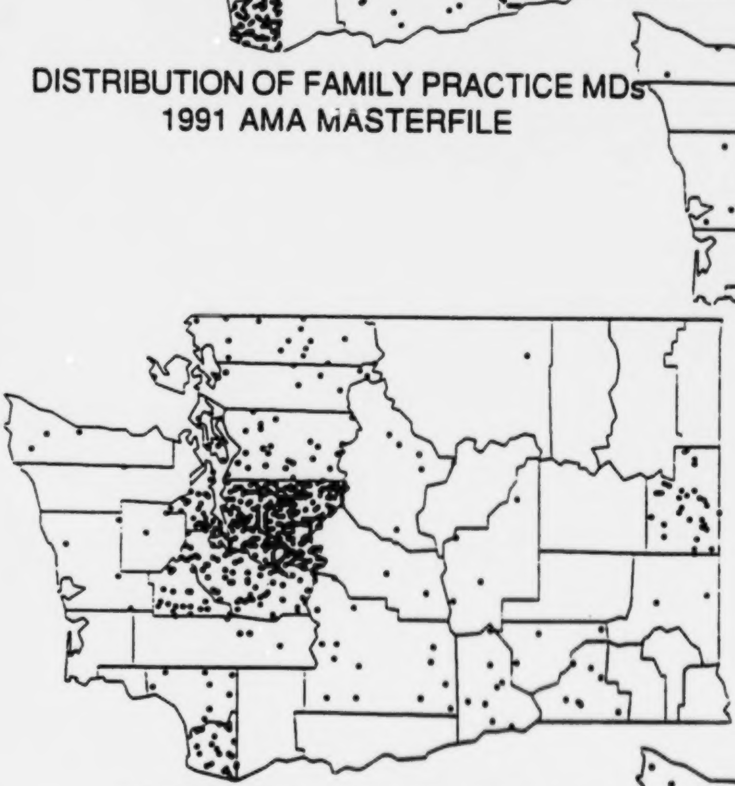
Exhibit 3



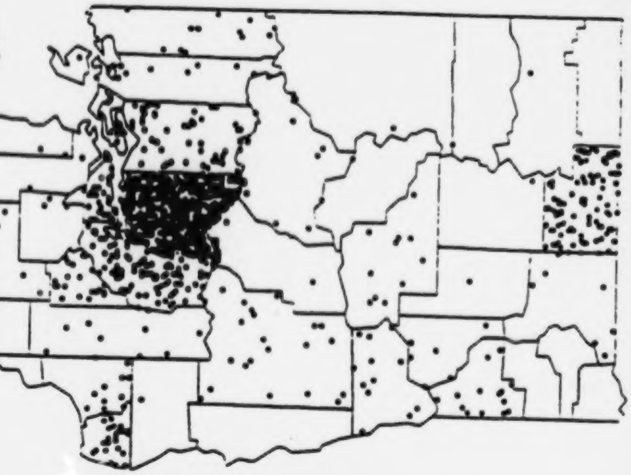
DISTRIBUTION OF FAMILY PRACTICE MDs
1991 AMA MASTERFILE



DISTRIBUTION OF OBGYN MDs
1991 AMA MASTERFILE



DISTRIBUTION OF PEDIATRIC MDs
1991 AMA MASTERFILE

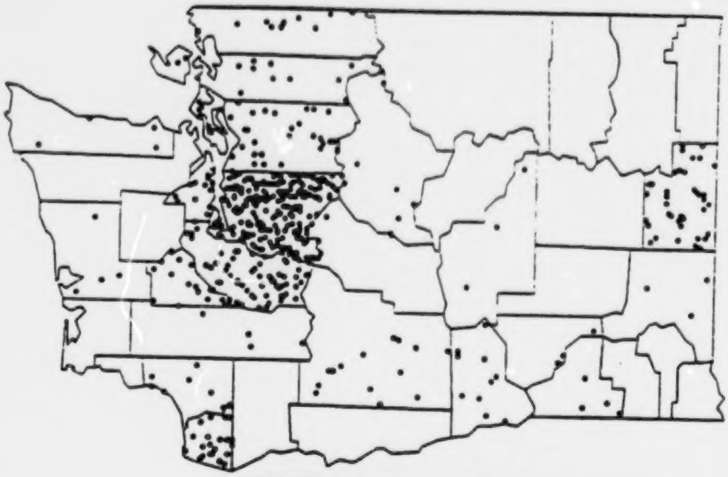


DISTRIBUTION OF GENERAL INTERNAL MEDICINE MDs
1991 AMA MASTERFILE

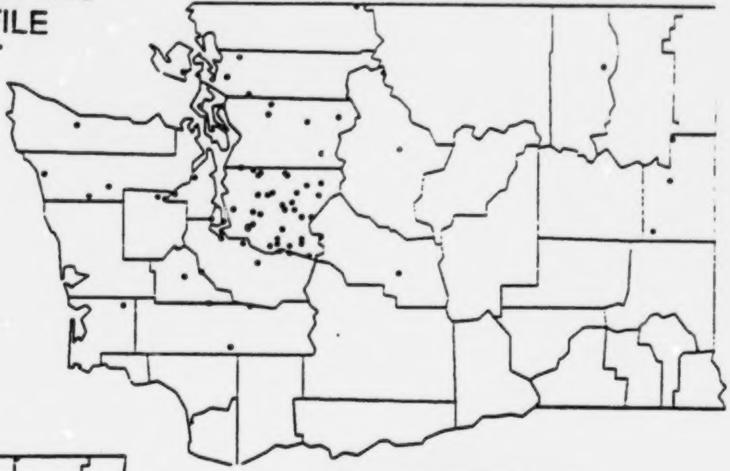
DISTRIBUTION BY
PRIMARY CARE SPECIALTY

Each Dot = 1.00

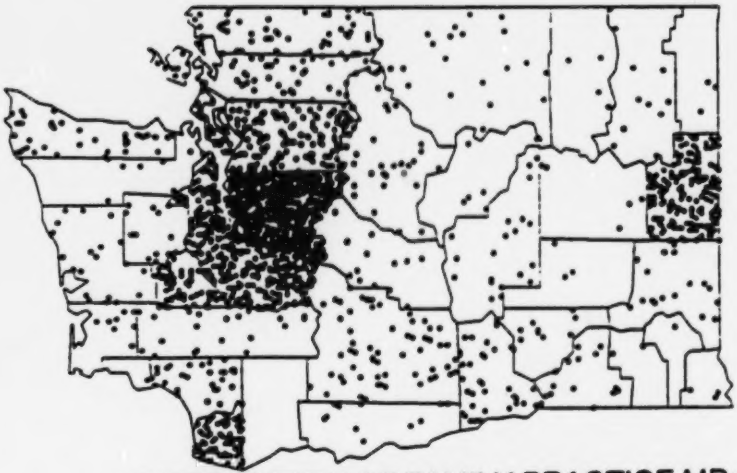
Exhibit 4



DISTRIBUTION OF OBGYN MDs
1991 AMA MASTERFILE



MW DISTRIBUTION
1991 ROSTER OF LICENSED MW'S

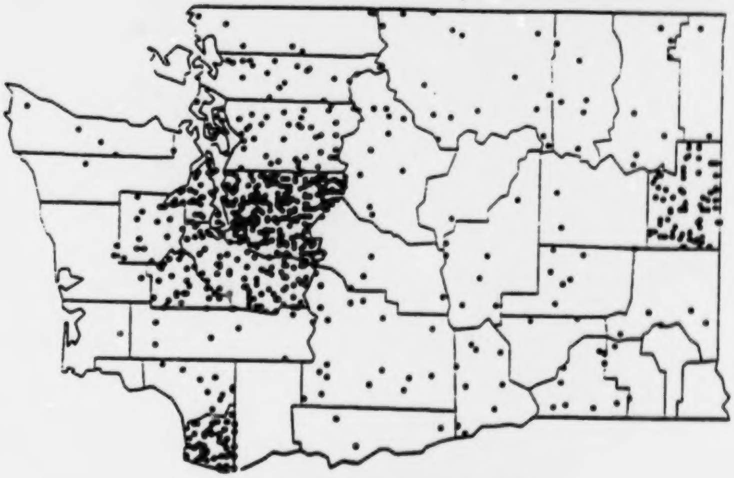


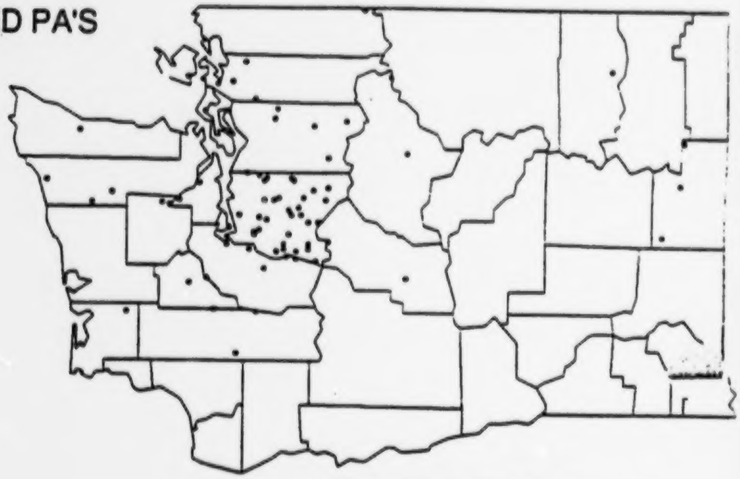
DISTRIBUTION OF FAMILY PRACTICE MDs
1991 AMA MASTERFILE

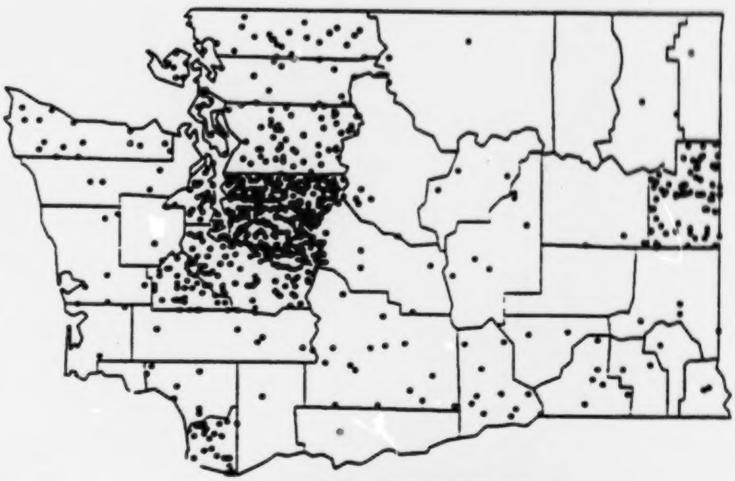
DISTRIBUTION OF
MATERNITY CARE PROVIDERS

Each Dot = 1.00 132

Exhibit 5


PA DISTRIBUTION
1991 ROSTER OF LICENSED PA'S


MW DISTRIBUTION
1991 ROSTER OF LICENSED MW'S


ARNP DISTRIBUTION
1991 ROSTER OF LICENSED ARNPS

**DISTRIBUTION OF
MIDLEVEL PROVIDERS**

Each Dot = 1.00

Survey Findings:

Practitioner survey response rates were: 79% physician and surgeons; 75% osteopathic physician and surgeons; 67% naturopathic physicians; 79% physician assistants; 53% advanced nurse practitioners and 63% licensed midwives.

Medical doctors have an average of 70.529 patient visits per week; osteopathic physicians reported an average of 89.27 visits. With a much larger supply of medical doctors the average productivity of the two professions combined was 71.212 patient visits per week. With current productivity, from 6,653 to 7,066 physicians in direct patient care would be required to care for the services defined as "patient visits."

The American Medical Association's Masterfile data shows Washington state had 6,665 non-federal medical doctors in direct patient care in 1991, excluding psychiatrists, pathologists, radiologists, anesthesiologists, and residents/fellows. Additionally, in 1991 there were 383 licensed osteopathic physicians in the state and the Department of Health survey revealed that half who answered the survey were primary care physicians. The total supply would be about 7,000 physicians plus federal physicians in direct patient care.

Managed Care System:

Additionally, HPRP staff reviewed material prepared by Milliman and Robertson, consultants to the Health Care Commission, to ascertain its usefulness in forecasting physician requirements in a reformed health system which provides universal financial coverage. The material indicated that actuarial methods used to develop the cost estimates included estimated demand for direct patient care visits to all specialties of physicians. HPRP staff then consulted with Milliman and Robertson staff to develop a measure of "patient visits" comparable to national studies. It was determined that outpatient psychiatric/alcohol/drug visits were excluded from the measure.

Exhibit 6 details estimated patient visit demand under the various plans. This work was done by HPRP staff, not by the Commission or its actuaries. This table shows that utilization by three population cohorts was used to estimate annual and weekly statewide demand for patient visits. Statewide demand ranged from a low of 4.56 annual visits per persons (unmanaged) to 5.53 visits (managed), a range of from 473,797 (unmanaged) to 503,164 (managed) total weekly visits by Washington's 1991 population.

Potential Physician Needs:

Exhibit 7 evaluates the potential requirements for physicians. The population of each county was multiplied by the national mean for physician visits (5) to determine the total possible physician visits. Total possible visits were then divided by physician data from the AMA Masterfile to determine the number of physicians needed to provide those visits.

Due to data limitations, this method is only a starting point for beginning the discussion on physician need. Exhibit 8 illustrates potential physician surplus and shortage. It shows that 22 counties have an inadequate supply of providers, 14 counties have more than required, and 4 counties have the appropriate amount.

Exhibit 6

APPLICATION OF MILLIMAN & ROBERTSON Adjusted UTILIZATION RATES TO WASHINGTON STATE POPULATION PATIENT VISITS FOR POPULATION UNDER AGE 65 AND NOT POOR (COMMERCIAL), ALL AGE 65+ (MEDICARE), AND POOR UNDER AGE 65 (MEDICAID) - UNDER VARIOUS SCENARIOS OF MANAGED CARE AND COPAYMENTS, 1991

	PLAN I	PLAN II	PLAN III	PLAN IV	PLAN V
COMMERCIAL					
Number of visits per person					
Unmanaged	4.850	4.797	3.974	4.330	4.330
Managed	4.798	4.650	4.358	4.513	4.513
Number of visits					
Unmanaged	19,070,491	18,862,092	15,626,006	17,025,820	17,025,820
Managed	18,866,024	18,284,079	17,135,917	17,745,387	17,745,387
MEDICARE					
Number of visits per person					
Unmanaged	9.674	9.224	7.572	8.301	8.301
Managed	10.102	9.782	9.140	9.497	9.497
Number of visits					
Unmanaged	5,679,093	5,414,922	4,445,120	4,873,077	4,873,077
Managed	5,930,349	5,742,494	5,365,610	5,575,185	5,575,185
MEDICAID (ALL ARE IN PLAN I)					
Number of visits per person					
Unmanaged	5.690	5.690	5.690	5.690	5.690
Managed	5.909	5.909	5.909	5.909	5.909
Number of visits					
Unmanaged	2,738,557	2,738,557	2,738,557	2,738,557	2,738,557
Managed	2,843,960	2,843,960	2,843,960	2,843,960	2,843,960
STATE TOTAL					
Annual Number of visits per person					
Unmanaged	5.50	5.40	4.56	4.93	4.93
Managed	5.53	5.37	5.07	5.23	5.23
Annual Number of visits					
Unmanaged	27,488,141	27,015,371	22,809,683	24,637,434	24,637,434
Managed	27,640,333	26,870,533	25,343,487	26,164,532	26,164,532
Weekly Number of visits					
Unmanaged	528,618	519,530	438,648	473,797	473,797
Managed	531,545	516,741	487,413	503,164	503,164

Plan I: no copayments, no deductible
Plan II: Adult 10% coinsurance, children none. Some items covered in full.
Plan III: $5 copayment per primary care physician office visit, 30% coinsurance certain other visits.
Plan IV: $10 copayment per physician visit, full coverage for certain other items.
Plan V: 20% coinsurance if participating provider; 40% if not.

1991 population cohorts based on proportions in 1990 census of population:

State total in 1991	5,000,400	100%
Non-poor, under age 65	3,932,060	78.63%
All age 65+	587,047	11.74%
Under age 65, under 100% Federal poverty level	481,293	9.63%

SOURCE: "Washington Health Care Commission: Development of Expected Health Care Costs," Milliman & Robertson, Inc., May 29, 1992.
"1991 Population Trends for Washington State," OFM, August 1991.
U.S. Census, 1990

DOH, HI, 8/28/92

BEST COPY AVAILABLE

Exhibit 7

COUNTY	1991 POPULATION	PATIENT CARE MDS*	POSSIBLE VISITS**	MDS NEEDED***	ADEQUATE/ SHORTAGE
ADAMS	13800	4	69000	14	-10
ASOTIN	17800	3	89000	18	-15
BENTON	114800	126	574000	114	12
CHELAN	53200	99	266000	53	46
CLALLAM	58500	75	292500	58	17
CLARK	250300	172	1251500	248	-76
COLUMBIA	4000	2	20000	4	-2
COWLITZ	83500	90	417500	83	7
DOUGLAS	27500	11	137500	27	-16
FERRY	6500	4	32500	6	-2
FRANKLIN	38600	28	193000	38	-10
GARFIELD	2300	2	11500	2	0
GRANT	56400	46	282000	56	-10
GRAYSHARBOR	65100	46	325500	64	-18
ISLAND	62700	52	313500	62	-10
JEFFERSON	21600	20	108000	21	-1
KING	1542300	3012	7711500	1526	1486
KITSAP	196500	194	982500	194	0
KITTITAS	27400	25	137000	27	-2
KLICKITAT	16800	10	84000	17	-7
LEWIS	60500	52	302500	60	-8
LINCOLN	8900	6	44500	9	-3
MASON	39900	26	199500	39	-13
OKANOGAN	34000	26	170000	34	-8
PACIFIC	19200	14	96000	19	-5
PENDOREILLE	9200	4	46000	9	-5
PIERCE	603800	655	3019000	598	57
SANJUAN	10700	16	53500	11	5
SKAGIT	82800	121	414000	82	39
SKAMANIA	8500	0	42500	8	-8
SNOHOMISH	484000	407	2420000	479	-72
SPOKANE	366000	591	1830000	362	229
STEVENS	31500	14	157500	31	-17
THURSTON	168000	224	840000	166	58
WAHKIAKUM	3300	3	16500	3	0
WALLAWALLA	49300	69	246500	49	20
WHATCOM	132200	168	661000	131	37
WHITMAN	38500	38	192500	38	0
YAKIMA	190500	208	952500	189	19
STATE	5000400	6665	25002000	4948	1717

* PATIENT CARE MDS ARE THOSE NON FEDERAL ACTIVE PHYSICIANS ON THE AMA MASTEFILE FOR DEC 1991 WHO ARE NOT IDENTIFIED AS PATHOLOGISTS,RADIOLOGISTS, ANESTHESIOLOGISTS, CLINICAL PHARMACOLOGISTS OR PSYCHIATRISTS. PHYSICIANS IN TRAINING (RESIDENTS AND FELLOWS), ARE ALSO EXCLUDED.

** POSSIBLE VISITS FOR EACH COUNTY IS ESTIMATED BY MULTIPLYING THE POPULATION BY 5, THE NATIONAL MEAN NUMBER OF VISITS TO PHYSICIANS MADE BY EACH PERSON IN THE USA. (REFERENCE)

*** PHYSICIANS NEEDED IS CALCULATD BY DIVIDING THE POSSIBLE VISITS BY 5052.5, THE MEAN NUMBER OF TOTAL VISITS PER YEAR (1990) TO ALL PHYSICIANS - PACIFIC REGION -(EXCLUDING THE SPECIALTIES IN * ABOVE) AMA:SOCIOECONOMIC CHARACTERISTICS OF MEDICAL PRACTICE 1990/91 TABLES 1 & 22

THIS METHOD OF DETERMINING PHYSICIAN NEED IS BASED ON MANY ASSUMPTIONS AMONG WHICH ARE:

1. THAT THE POPULATION OF EACH COUNTY IN WASHINGTON IS VISITING THE DOCTOR AT THE PACIFIC REGION MEAN RATE, AN ASSUMPTION THAT IS HIGHLY UNLIKELY TO SURVIVE AN INDEPENDENT INVESTIGATION OF WASHINGTON COUNTIES.
2. THAT THE NUMBER OF VISITS MADE TO THE PHYSICIAN IS AN APPROPRIATE NUMBER, AGAIN AN ASSUMPTION THAT IS NOT ROBUST IN THAT MANY UNINSURED CITIZENS DO NOT VISIT THE PHYSICIAN AS OFTEN AS THEY SHOULD, AND MANY INSURED MAKE TOO MANY VISITS. THE FIGURE USED IS A NATIONAL MEAN ** THE FIGURE FOR WASHINGTON COUNTIES WILL DEPEND ON THE DEMOGRAPHICS FOR EACH COUNTY - RACE, AGE, GENDER,REGION ETC.
3. THAT RESIDENTS OF EVERY COUNTY VISIT DOCTORS IN THEIR COUNTY AND DO NOT MIGRATE TO OTHER COUNTIES FOR PHYSICIAN VISITS. THE FAILURE OF THIS ASSUMPTION TO HOLD WOULD MITIGATE BOTH SURPLUS AND SHORTAGE IN CERTAIN COUNTIES.
4. THE METHOD EXCLUDES PSYCHIATRISTS ANDOTHER SPECIALISTS IDENTIFIED ABOVE *

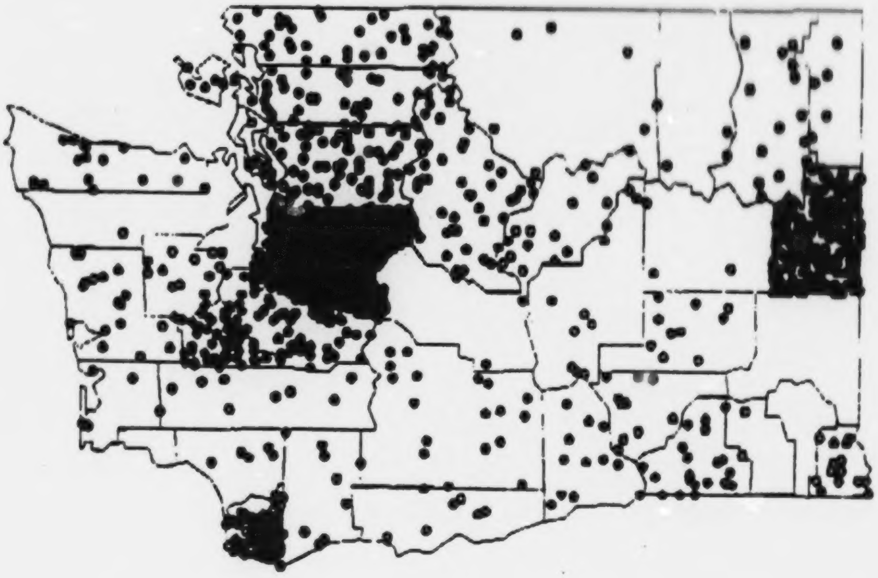
THE METHOD IS OFFERED AS A STARTING POINT FOR DISCUSSION OF NEED FOR PHYSICIANS NOT AS A DEFINITIVE ANSWER.

Exhibit 8

SURPLUS - FILLED DOTS REPRESENT ONE PHYSICIAN

SHORTAGE - UNFILLED DOTS REPRESENT ONE PHYSICIAN

(SEE ACCOMPANYING TABLE)



FINDINGS

Although one can conclude that the statewide supply of physicians in direct patient care is adequate and no statewide shortage exists, a serious distribution problem does exists.

The number of physicians in direct patient care was sufficient in 1991 for the packages proposed for universal health care coverage. This data, however, was not developed for drawing conclusions on the appropriateness in mix of physician specialties or their geographic distribution for ease in access.

The third section this report, **UNDERSERVED SERVICE AREAS** reviews the affect on supply created by the unwillingness of physicians to accept Medicaid and Medicare patients.

Plan Response to Findings

The Plan addresses the issues of geographic distribution and specific health personnel needs of target populations. Recommendations are noted under:

- community efforts in developing adequate health personnel supply, recruitment efforts to respond to target population needs
- assuring a financial base
- joint strategies for recruitment and retention
- reimbursement and regulatory impact on recruitment and retention, subsidization of malpractice insurance costs
- efforts to reduce health personnel isolation
- alternative training sites, recruitment of under-represented groups
- rural training track for medical students and geographic distribution of residency training

NURSING PERSONNEL

Description and Findings

BACKGROUND

Forecasted increases in the age of the general population and the labor pool composition have caught the attention of policy makers. This is especially true regarding the adequacy of the future supply of health personnel. In particular, since the mid-1980's, the increasing supply of nurses has not kept pace with the fast growing demand for nurses.

According the U.S. Bureau of Health Professions, Washington fares better than the Pacific Region (AK, CA, HA, OR, WA) and the U.S. as a whole in the supply of registered nurses. The Bureau projects Washington state's supply of employed registered nurses by the year 2000 will be adequate to meet the needs of the population. However, this does not mean shortages will not be present in some geographic areas, facilities and specialties. Specifics for these reports can be found in 1990 Survey of Nursing Demand Shortage Statewide Report.

The three largest groups of personnel within the broad category of nursing are registered nurse (RN), licensed practical nurse (LPN) and nurse assistants/aides (NA).

NURSING PERSONNEL WITH WA STATE CREDENTIALS, 1992

	Total	With WA Address
RN	51,003	44,586
ARNP	2,046	1,788
LPN	13,786	12,836
NA	29,326	15,172

Source: WA. State Department of Health, active licenses as of April, 1992. (May maintain active license and still not work in nursing field, in state, or full time).

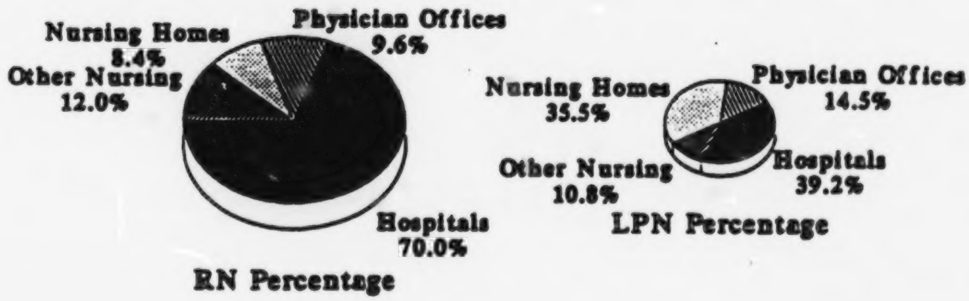
A 1988 federal survey showed that 68% of RNs employed in nursing nationwide were employed in hospitals, 6.9% in community/public health settings, 6.6% in nursing homes and 18% in other areas.

The percentages for employment settings for both RNs and LPNs for Washington state, as reported by the State Employment Security Department are reported in (Exhibit 9). The pies are proportionate to the numbers of RNs and LPNs reported by health related employers in the state. They indicate 70% of the RNs and 39.2% LPNs are employed in hospitals; 9.6% RNs and 14.5% LPNs are employed in

Physician Offices; 8.4% RNs and 35.5% LPNs are employed in Nursing Homes; and 12% RNs and 10.8% LPNs are employed in other settings.

Exhibit 9

SETTINGS FOR RNs & LPNs
EMPLOYED IN NURSING IN WA STATE, 1987-89



RN Percentage

LPN Percentage

State Employment Security Dept,
1989 Occupational Profiles (hospitals) &
1987 Occupational Profiles (remainder)

DESCRIPTION

The 1990 Survey of Nursing Demand Shortage Statewide Report was used as the source document for evaluating nursing personnel shortages. The survey for that report was done in collaboration with the state hospital association, two nursing home associations and the home care association. Similar surveys were sent to public health departments/districts, community health clinics receiving state primary care funds, and migrant farmworker clinics. The surveys gathered information on advanced registered nurse practitioners, registered nurses, licensed practical nurses and certified nurse midwives. Information was also gathered for certified nursing assistants, although they are not specifically discussed in the 1993-1995 Plan.

Detailed information on nursing personnel shortages and the counties which composed the regions used can be found in 1990 Survey of Nursing Demand Shortage Statewide Report, which is available upon request from the Department of Health.

Vacancies:

The respondents employed 171 Nurse Practitioners, 13,170 Registered Nurses, 2,438 Licensed Practical Nurses, 312 Public Health Nurses, 3 Certified Nurse Midwives.

The funded but vacant full-time-equivalent positions amounted to a vacancy rate of 15% for Nurse Practitioners, 7% for Registered Nurses and 9% for Licensed Practical Nurses. The overall vacancy rate was 7.6%. The funded but vacant FTE positions represented a total of 1,721 persons of which 958 were Registered Nurses, (Exhibits 10 and 11).

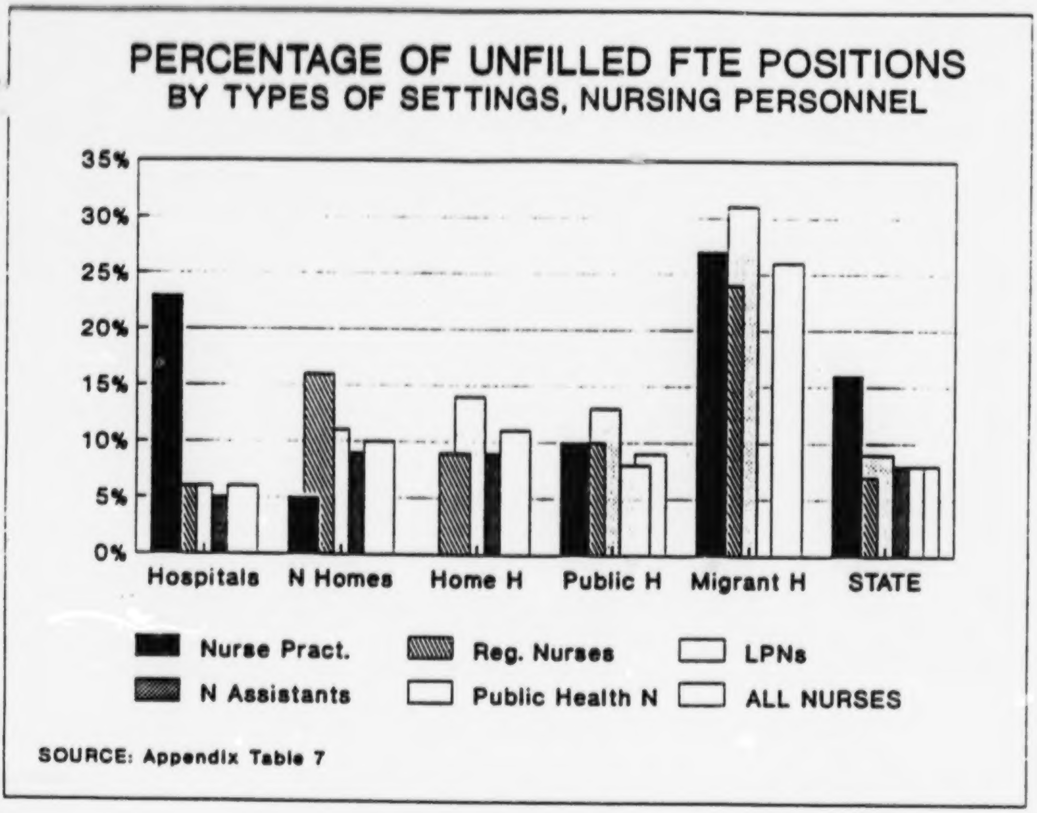
Respondents were actively recruiting to fill 1,432 positions, full or part time. 804 of the positions were for Registered Nurses.

The vacancy rate for nursing personnel was 6% at hospitals, 10% at nursing homes and home health agencies, 9% at public health departments/districts, and 26% at community and migrant clinics, (Exhibit 12).

An estimated 26 Nurse Practitioners, 1741 Registered Nurses, and 481 Licensed Practical Nurses were needed to fill funded vacancies in all hospitals and nursing homes.

An estimated 17 Nurse Practitioners, 82 Registered Nurses, 37 Licensed Practical Nurses, 2 Certified Nurse Midwives and 29 Public Health Nurses were needed to fill funded vacancies in home health agencies,public health and community and migrant health clinics which responded to the survey.

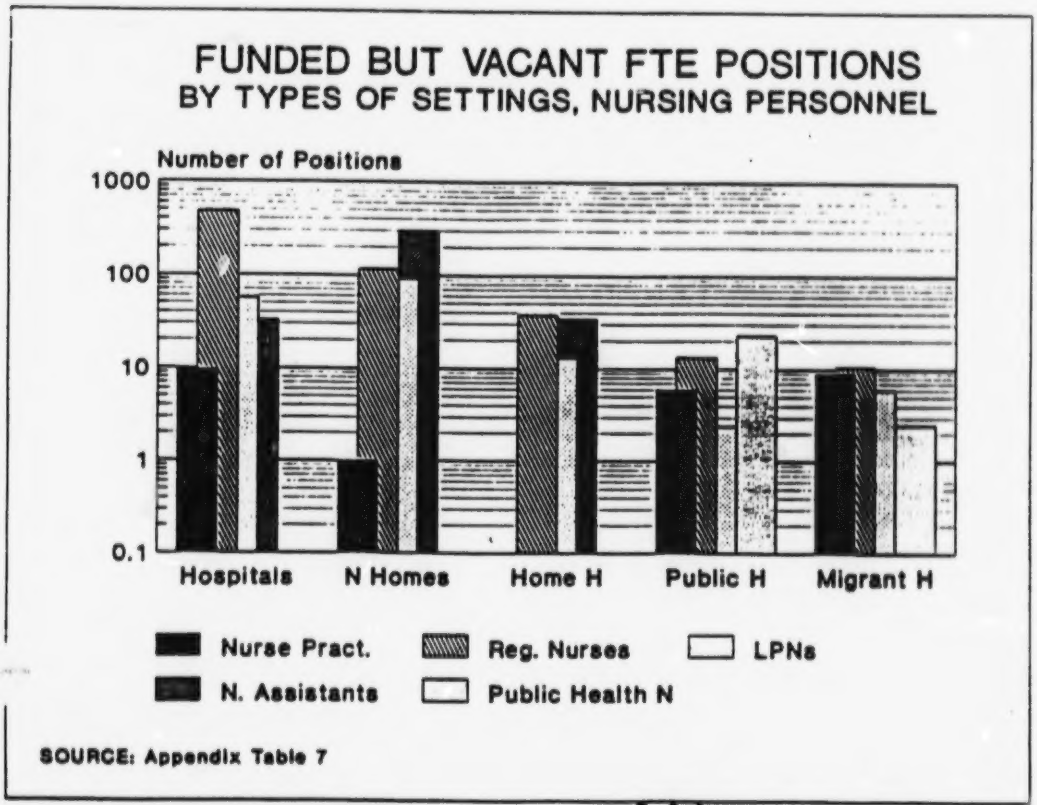
Exhibit 10



PERCENTAGE OF UNFILLED FTE POSITIONS
BY TYPES OF SETTINGS, NURSING PERSONNEL

SOURCE: Appendix Table 7

Exhibit 11

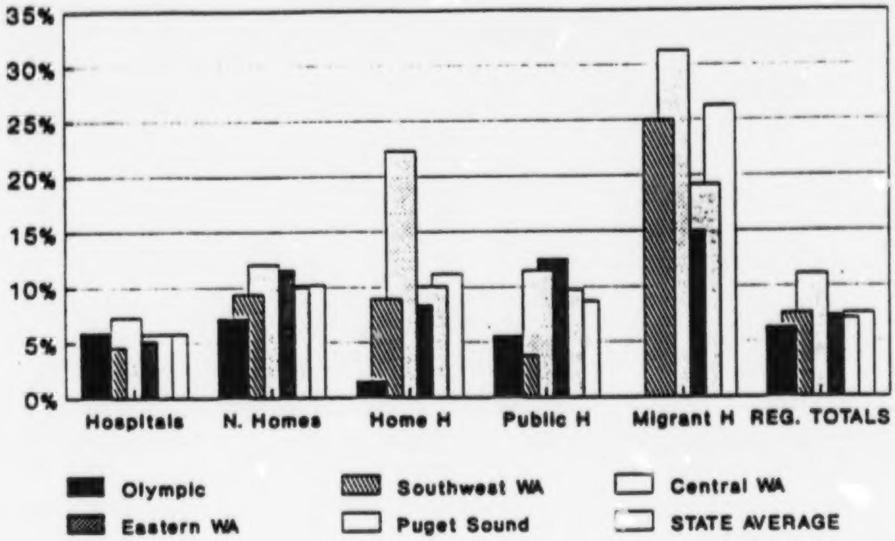


FUNDED BUT VACANT FTE POSITIONS
BY TYPES OF SETTINGS, NURSING PERSONNEL

SOURCE: Appendix Table 7

Exhibit 12

REGIONAL VACANCY RATES FOR ALL NURSING CATEGORIES, BY SETTING

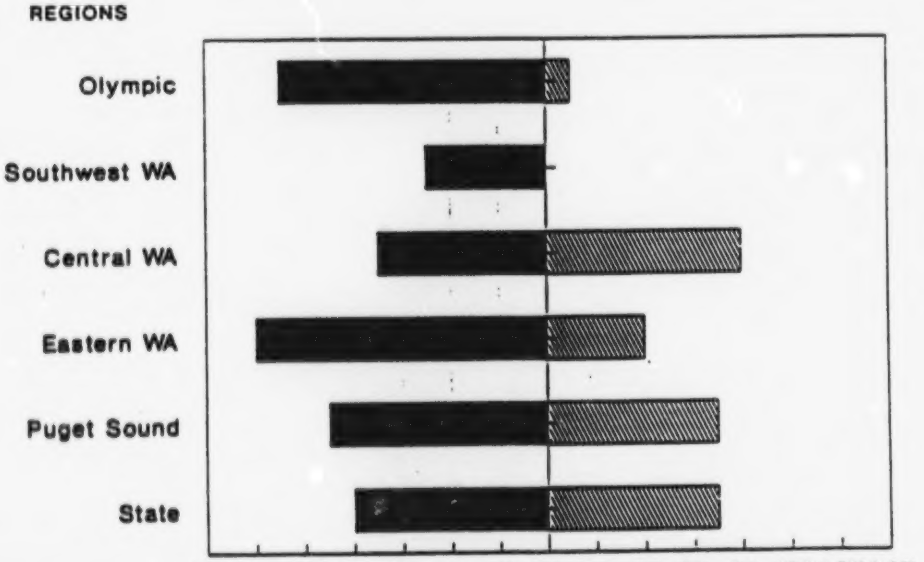


SOURCE: Appendix 8

Exhibit 13

URBAN/RURAL HOSPITALS PERCENTAGE OF UNFILLED POSITIONS

ALL NURSING STAFF, BY REGION



SOURCE: Appendix 9

Urban and rural hospitals had a similar vacancy rate for the total nursing staff, 7% and 8% respectively. Urban hospitals had a vacancy rate for the RN staff of 4% compared to 8% for rural hospitals. Among rural hospitals, the Eastern Washington region had the highest vacancy rate for the total nursing staff; among urban hospitals the Central Washington region had the highest (Exhibit 13).

Turnover:

Between January 1 and June 30, 1990, 4,157 nursing staff left their positions at respondent institutions. This amounted to a six-month turnover rate of 20%. Turnover rate for Registered Nurses was 9%. As hospitals hire mostly registered nurses, they had the most stable staffing among employing institutions (Exhibit 14).

Persons to Fill FTE Position:

It took an average of 1.45 registered nurses to fill one full-time equivalent (FTE) position. Across all employing institutions, registered nurses had the highest part-time employment. However, among different types of employers, the highest was the requirement for 2.04 licensed practical nurses to fill one FTE position in home health agencies.

Problems Maintaining Adequate Staff:

Sixty-nine of respondents reported they were having problems maintaining an adequate nursing staff. Nursing homes reported this at the highest rate. Among the regions, Puget Sound and Central Washington had the highest percentage of institutions reporting this problem.

Hospital Clinical Areas Most Affected:

Hospital clinical areas most affected by the nursing shortage were obstetrics, medical-surgical, and critical care (ICU/CCU).

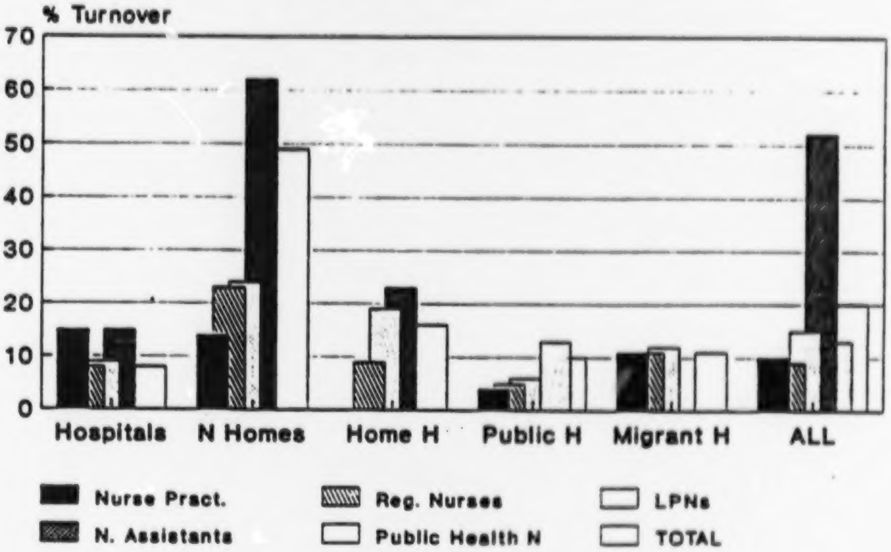
The median time needed to fill an RN vacancy in clinical areas was 5.5 months in obstetrics units and three months in medical-surgical and critical care units.

Service Restrictions Due to Shortage:

Almost half of the hospitals and home health agencies restricted services due to lack of nursing or other personnel. The majority of nursing homes in all regions did not. 43 of the community/migrant health clinics and 56% of the public health departments/districts restricted services (Exhibit 15).

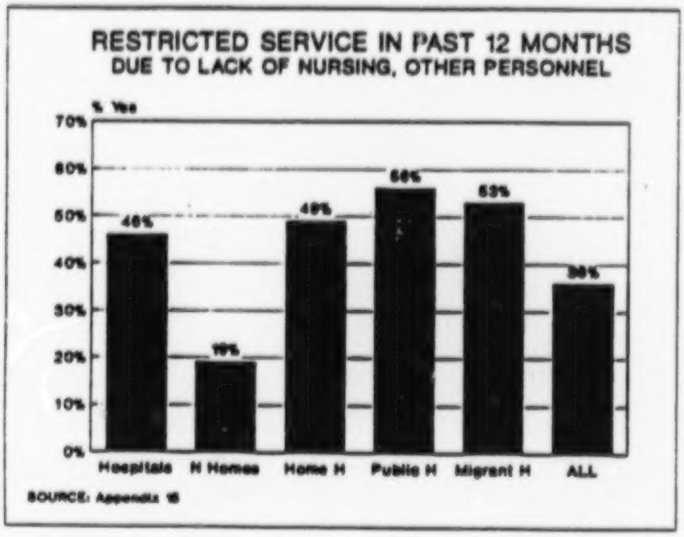
Exhibit 14

SIX MONTH TURNOVER RATE
OF NURSING STAFF, JAN-JUNE 1990



SOURCE: Appendix 13

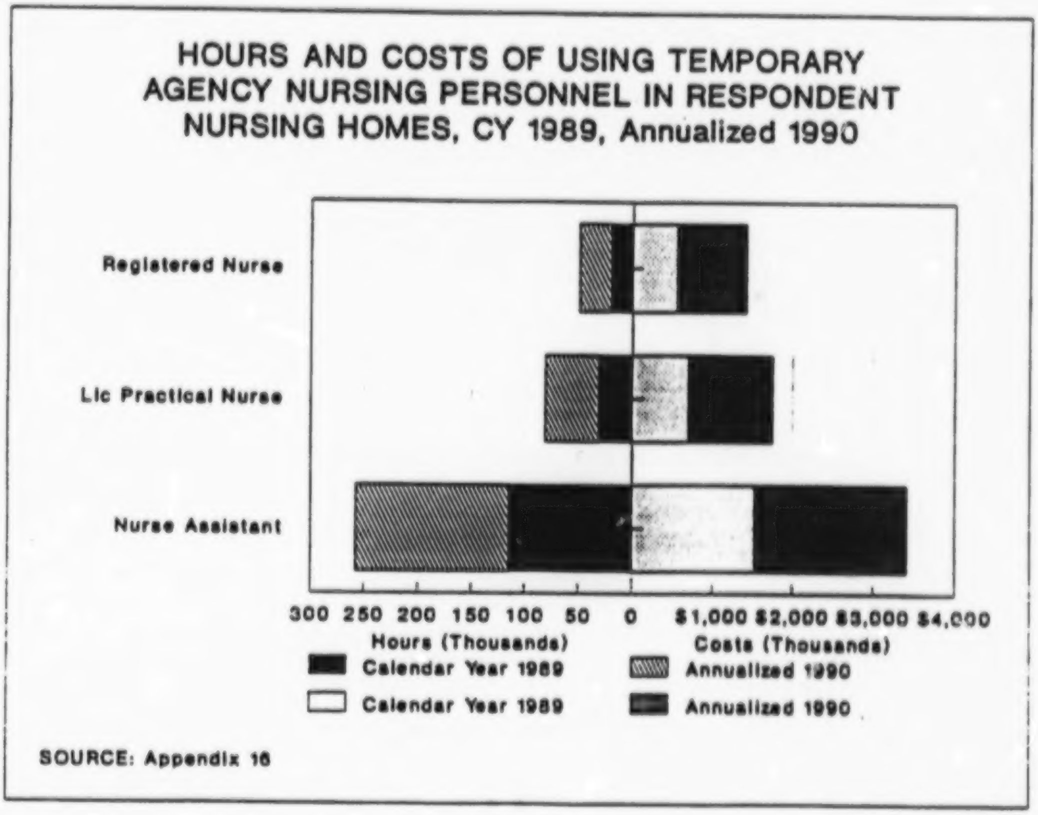
Exhibit 15



RESTRICTED SERVICE IN PAST 12 MONTHS DUE TO LACK OF NURSING, OTHER PERSONNEL

SOURCE: Appendix 16

Exhibit 16



HOURS AND COSTS OF USING TEMPORARY AGENCY NURSING PERSONNEL IN RESPONDENT NURSING HOMES, CY 1989, Annualized 1990

SOURCE: Appendix 16

Use of Agency Nursing Pools:

Clinics and home health agencies use few agency nurses. Respondent hospitals spent $10,776,700 in 1989 and $7,924,200 in the first half of 1990 for agency nurses. The hours were equivalent to 171 additional nursing staff in 1989 and 241 in the first half of 1990. Hospitals in the Puget Sound Region accounted for 98% of the expenditures in both years.

Nursing Homes which responded spent $2,777,755 in 1989 and $1,897,910 in the first half of 1990 for agency nurses (Exhibit 16). The hours were equivalent to 84 additional nursing staff in 1989 and 55 in the first half of 1990. Nursing homes in the Puget Sound Region accounted for 67% of the expenditures in 1989 and 74% in the first half of 1990. Nursing homes used temporary CNAs three times as more hours than they used temporary LPNs, and five times more than RNs. In 1989 Nursing Home spent more on CNAs than on RNs and LPNs combined.

Current Strategies to Alleviate Nursing Shortages:

Survey respondents identified the following strategies to address nursing shortages:

Hospitals:

Change the mix of nursing skills by increasing the use of nurse assistants, extenders, unit attendants, non-RN staff, non-licensed staff, junior volunteers and ward clerks.

Replace RNs with LPNs, including those in obstetrics area, which have been traditionally staffed by RNs.

Return to the team nursing approach; explore education for RN to effectively delegate duties; computerization; and interdepartmental support.

Nursing Homes:

Maintain the same mix of nursing skills, thus maintaining quality with existing staff by decreasing the census/number of beds. Convert to skilled rehabilitation facility. Accept only private pay, (no medicaid patients). Refuse acceptance of heavy care patients newly discharged from the hospitals.

Increase wages and institute benefits such as flexible scheduling, night/weekend wage differentials and health insurance for all full-time employees.

Hire non-credentialed personnel for tasks such as walking patients and passing out water. The personnel would have titles such as, meal service aides, unit aides, bedmakers, feeders, ward clerk, receptionists, social service person, activities person, and human resources person. This would free up state-credentialed personnel from these tasks.

Development of nursing scholarship programs for employees.

Community Health Clinics:

Recruitment of physicians assistants to fill vacant nurse practitioner slots.

Public Health Departments/Districts:

Lowering educational requirements for entry level nurses from a baccalaureate RN to associate degree RN. The latter would require three years of on-the-job training to gain public health skills.

FINDINGS

These approaches suggested by survey respondents may be creative ways to begin addressing the immediate nursing shortages experienced by institutions. However, the states should promote the use of qualified licensed personnel to maintain quality of care. The state should also guard against potential loss of federal and state reimbursement by assuring that qualified licensed personnel are used in these facilities.

Additionally, institutions who propose to maintain current levels of nursing staff are faced with decreasing the number of patients they can serve. This often means refusing care to the most physically and financially needy patients or forcing placement of patients in inappropriate care settings.

Other options such as increased use of agency nursing pools and wage increases and differentials, would increase the cost of services to the consumer.

None of these approaches are the most efficient, cost effective methods of dealing with nursing shortages.

Plan Response to Findings

Recommendations proposed in the Health Personnel Resource Plan address professional satisfaction, turnover and a flexible workforce. Those approaches will generate a constant supply of providers to replace those leaving the profession. These recommendations are noted in the following sections of the HPRP:

- recruitment and retention
- professional isolation
- nursing articulation
- underrepresented groups

- nursing faculty shortage
- loan scholarship

UNDERSERVED SERVICE AREAS

Description and Conclusions

BACKGROUND

The mid-1960s witnessed the initiation of voluntary physician efforts to render basic health services to the poor and through store front clinics. In 1966, as part of the federal War on Poverty, health centers established. The federal Office of Economic Opportunity (OEO) granted funds to newly-formed Neighborhood Health Centers which delivered a spectrum of health and social services to the poor. These Centers were the forerunners of todays Community Health Centers.

Community and Migrant Health Centers funded through the federal government in the 1970'a became more directly focused toward the provision of medical care.

Twenty years after their initiation, these Health Centers continue to respond to the health care needs of traditionally underserved people. These include medically uninsured, migrant and seasonal farmworkers, non-English speaking people, low-income individuals and families, and underserved rural and urban underserved populations.

Information for the following section was taken from the state loan repayment federal matching grant application prepared by HECB. Additional information and supporting documents are available upon request to Department of Health.

DESCRIPTION

As of August 1992 there are 24 geographic areas, 19 population groups, and 4 correctional facilities designated as primary care Health Personnel Shortage Areas, (HPSA) in Washington. One hundred five additional primary care physicians would be required to eliminate these designations.

The July Washington geographic and population HPSA designations are shown on Exhibit 17 and 18. These exhibits reflect the following:

- Large rural areas with greater than 3,500 people for every primary care doctor and the doctors in contiguous areas farther away than 30 minutes travel time (criteria for geographic HPSA designation);
- Large rural areas with high migrant and seasonal farmworker populations
- Urban and urbanized areas with concentrations of poor, homeless and Medicaid-eligible populations

Exhibit 17

Health Professional Shortage Areas / HPSA's

For Primary Care Practitioners / Population Groups / July 1992

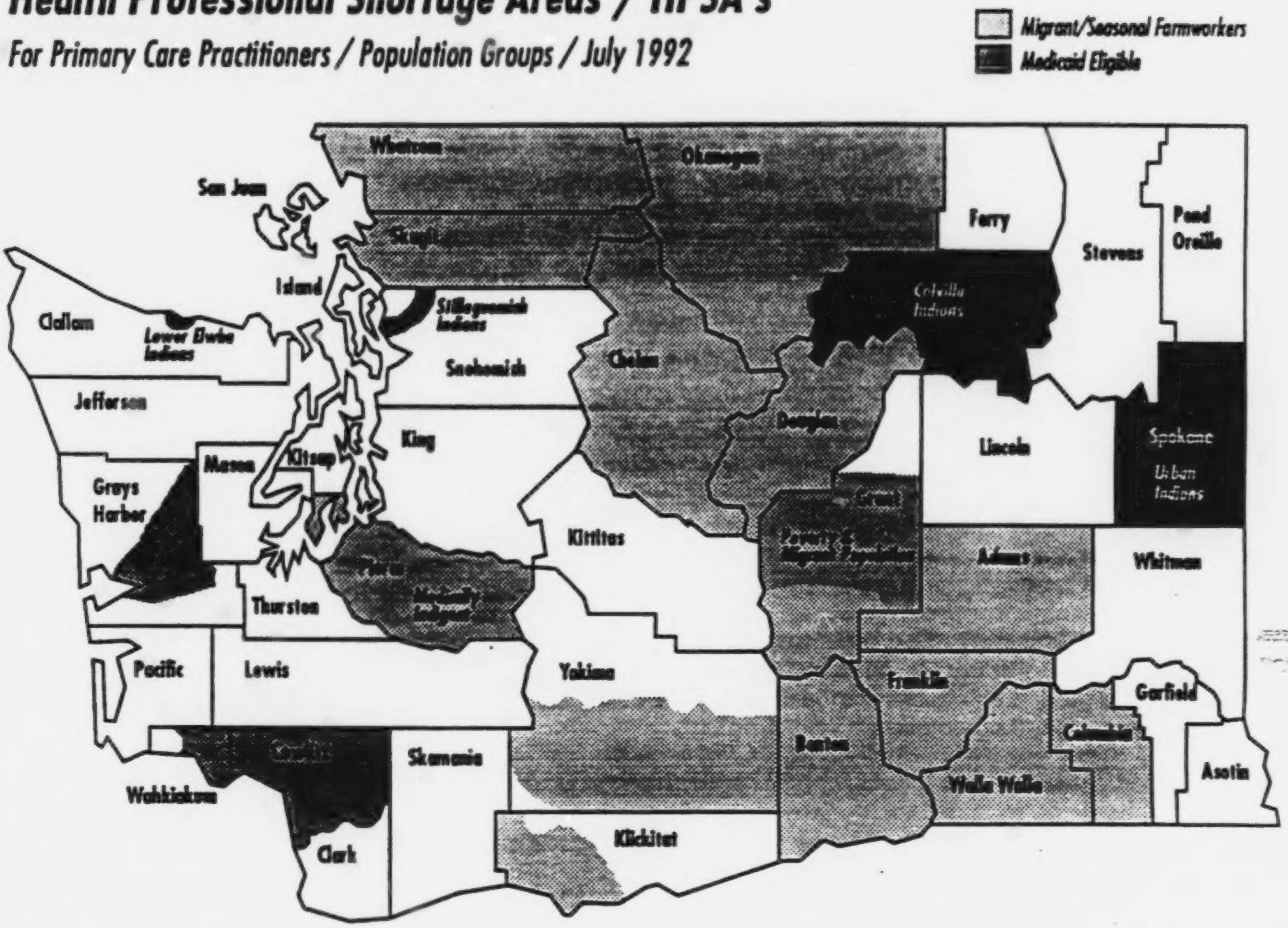
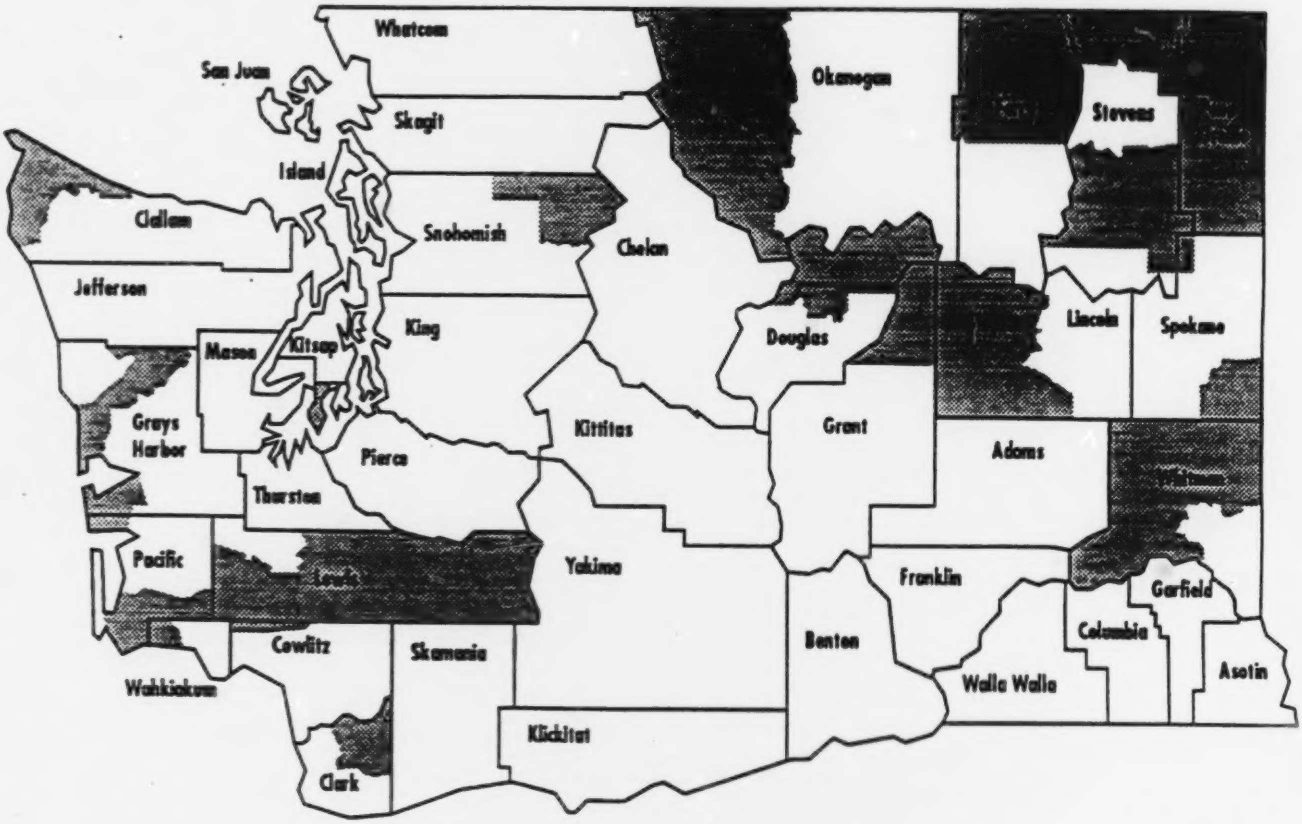

▨ Migrant/Seasonal Farmworkers
■ Medicaid Eligible
Whatcom
Okanogan
San Juan
Skagit
Ferry
Stevens
Pend Oreille
Island
Stillaguamish Indians
Clallam
Lower Elwha Indians
Colville Indians
Snohomish
Chelan
Jefferson
Douglas
King
Kitsap
Mason
Lincoln
Spokane
Urban Indians
Grays Harbor
Grant
Poverty & Migrant Population
Kittitas
Adams
Whitman
Thurston
Pacific
Lewis
Yakima
Franklin
Garfield
Cowlitz
Skamania
Benton
Columbia
Asotin
Wahkiakum
Walla Walla
Clark
Klickitat

Exhibit 18

Health Professional Shortage Areas / HPSA's

For Primary Care Practitioners / Geographic Areas / July 1992


Whatcom
San Juan
Okanogan
Skagit
Stevens
Island
Clallam
Snohomish
Chelan
Jefferson
Lincoln
Spokane
Douglas
Mason
Kitsap
King
Grays Harbor
Kittitas
Grant
Adams
Pierce
Thurston
Pacific
Yakima
Lewis
Franklin
Garfield
Benton
Columbia
Cowlitz
Skamania
Asotin
Wahkiakum
Walla Walla
Klickitat
Clark

- Several Native American groups with shortages.

Another federal designation, Medically Underserved Areas (MUAs) began in the mid-1970s using criteria of poverty, elderly, and infant mortality as well as physician supply. While many of the subcounty areas are identified in terms of 1970 census division/tracts, it is still noteworthy that 10 entire counties in Washington and subareas of 12 counties have federal MUA designations.

Community and migrant heath centers are located in many of the HPSAs and MUAs. (Exhibit 19)

Geographic Barriers:

The state of Washington can be divided into four basic areas: the Olympic Peninsula/Southwest (21% of the population); the Puget Sound/Skagit-Whatcom Regions (55%); Central Washington (12%); and Eastern Washington (12%).

The Olympic mountains are located in the center of the Olympic Peninsula, limiting east/west travel in most of Clallam, Jefferson, and Grays Harbor counties.

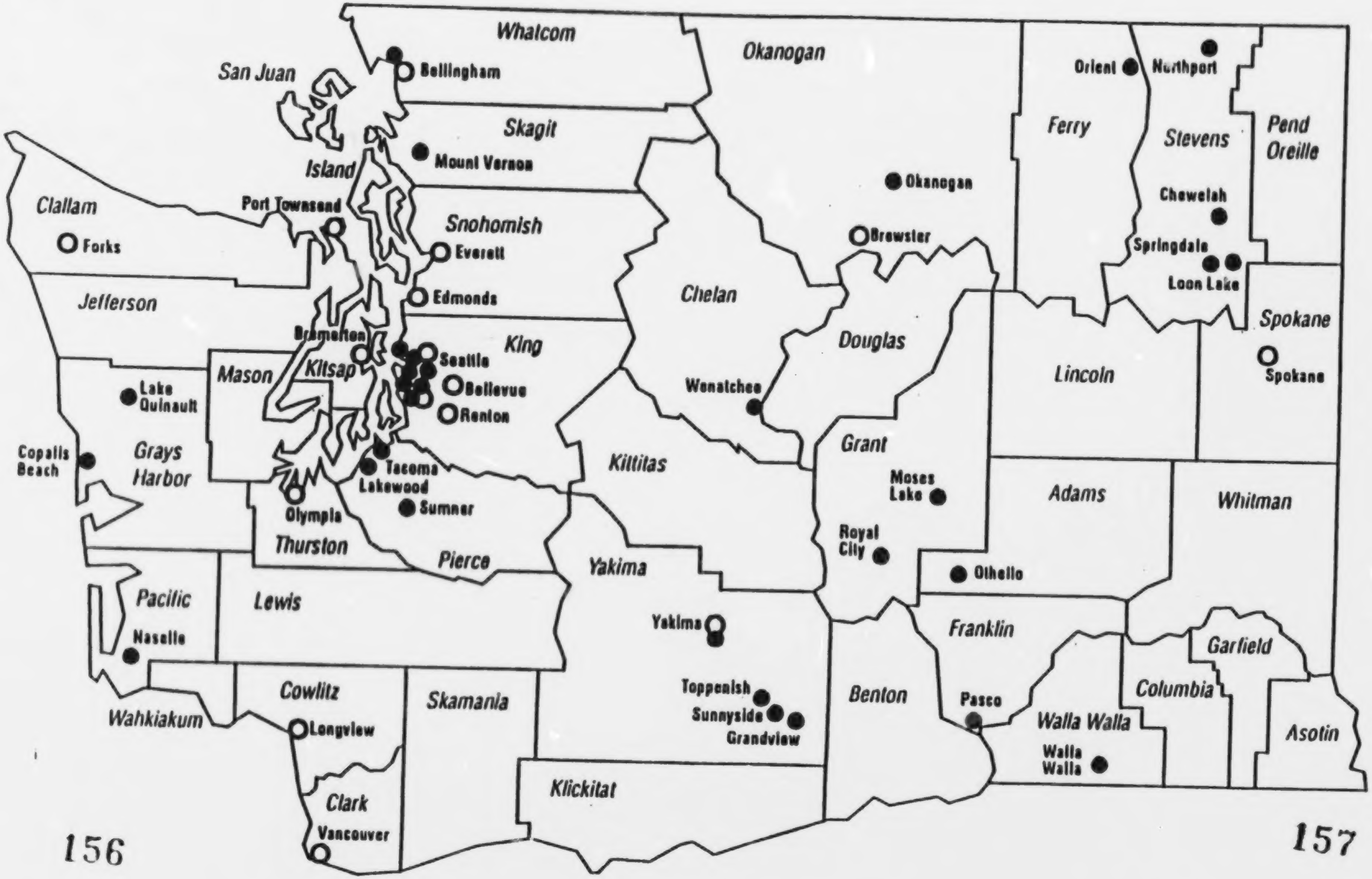
The Puget Sound Region/Southwest Washington is separated from Central Washington by the Cascade mountain range, running the length of the state from the Canadian border to the Columbia River. With only three major, all season highway crossings in the entire range, the Cascades are a major east/west transportation barrier.

The Selkirk mountains in northeastern Washington slow east/west travel within Pend Oreille county and into Idaho.

Community Health Clinics
In Washington Counties

Exhibit 19

○ State Funded Only
● Federal and State Funded


Whatcom
Bellingham
San Juan
Skagit
Mount Vernon
Island
Okanogan
Okanogan
Brewster
Ferry
Orient
Northport
Stevens
Pend Oreille
Chewelah
Springdale
Loon Lake
Clallam
Forks
Port Townsend
Snohomish
Everett
Edmonds
Jefferson
Bremerton
Kitsap
Seattle
King
Bellevue
Renton
Chelan
Wenatchee
Douglas
Lincoln
Spokane
Spokane
Mason
Lake Quinault
Copalis Beach
Grays Harbor
Tacoma
Lakewood
Sumner
Olympia
Thurston
Pierce
Kittitas
Grant
Moses Lake
Royal City
Adams
Whitman
Othello
Yakima
Yakima
Pacific
Naselle
Lewis
Franklin
Garfield
Toppenish
Sunnyside
Grandview
Benton
Pasco
Walla Walla
Walla Walla
Columbia
Asotin
Wahkiakum
Cowlitz
Longview
Skamania
Klickitat
Clark
Vancouver

Demographic and Economic Characteristics:

The population groups at greatest risk in these areas are the poor and minorities.

In 1990, 10.9% of the state's population had incomes below the federal poverty level. However, the percentage was higher among minority populations; 29.5 for Native Americans, 27.8% for Hispanics, 22.8% for Blacks, and 16.2% for Asian/Pacific Islanders.

16.4% of all children under age 6 were in families with incomes below the federal poverty level. 8.7% of the elderly age 65 and over in the state lived below the federal poverty level. However, the percentage was much greater in the rural counties except for rural retirement counties bordering Puget Sound.

Medicaid paid for 32.6% of all births in the state in 1990 and estimates this could reach 40% by the end of 1992.

In general, minority populations in Washington are substantially higher risk for poor birth outcomes, substance abuse and HIV infection. In 1990, statewide, the percentage of nonwhite mothers who began prenatal care after the first trimester was almost twice the percentage of white mothers. The infant death rate for non-whites was two-thirds higher than the rate for whites.

An estimated 550,000 persons in Washington State had no health insurance in 1991. 24% of these are children under age of 18. This represents 133,000 children without health insurance.

Over 163,000 persons without health insurance were employed fulltime, working 35 or more hours per week. Among the uninsured, employed and living below the poverty level, nearly 26,000 persons worked full time and 22,800 worked part time.

Almost three-fourths of the elderly population live in the stat's ten urban counties. However, a larger proportion of the rural counties' overall population is elderly; 14% as compared to 11% in urban counties. Elderly persons in rural areas face the combined problems of fewer health professionals and longer distance to access health care.

During peak harvest time, these counties experience an influx of up to 200,000 migrant farmworkers.

Current Provider Vacancies:

Information provided by the Northwest Regional Primary Care Association showed the following vacancies existed as of July 1992:

- 62 physician (MD/DO), in HPSA and non-HPSA sites which provide services to underserved populations.

- 51 in HPSAs which include Indian Health Service and correctional facilities sites.
- 32 in HPSAs and non-HPSA Community and Migrant Health Centers.

- 25 NP/PA in HPSA and non-HPSA sites which provide services to underserved populations.
- 3 NP/PA in HPSAs which include Indian Health Service and correctional facilities sites.
- 12 NP/PA in HPSA and non-HPSA Community and Migrant Health Centers.

- 5 NMW in HPSA and non-HPSA sites which provide services to underserved populations.
- 4 NMW in HPSAs which include Indian Health Services and correctional facilities sites.
- 3 NMW in HPSA and non-HPSA Community and Migrant Health Center.

These are current job openings with organizations ready to hire. They represent the recruitment needs within the HPSA and non-HPSA areas.

FINDINGS

Difficulty in retaining primary care providers for poor, isolated, and underserved communities is threatening the viability of health care systems and the health of the people in these communities.

Plan Response to Findings

The Health Professions Resource Plan addresses the needs of target populations through various recommendations. These include:

- community efforts in developing adequate health personnel supply, recruitment efforts to respond to target populations needs, assuring a financial base

- joint strategies for recruitment and retention

- reimbursement and regulatory impact on recruitment and retention, subsidization of malpractice insurance costs

- efforts to reduce health personnel isolation

- alternative training sites

- recruitment of under-represented groups

- rural training track for medical students

- geographic distribution of residency training

IV. FISCAL IMPACT AND PLAN PRIORITIES

FISCAL IMPACT AND PLAN PRIORITIES

DEVELOPMENT OF PLAN PRIORITIES

The 1993 - 95 Plan contains a wide array of programs, policies and strategies for consideration and implementation by state agencies, state educational institutions and communities. Many of the proposals reflect current approaches to resolving shortage problems, and are in the Plan to reflect the Committee's recommendation that the efforts continue. For example, the Plan recommends that the Office of Rural Health be established in statute, although it is funded in the Department's Current Authorized Level Budget. Other proposals reflect changes in focus or attitudes, not requests for a greater level of effort. For example, having the Department of Health work with communities to identify the appropriate mix of health personnel, is a proposed change in approach rather than a suggestion for additional studies.

The Department of Health's proposed policy decision package for the 1993-1995 budget contains a proposal for "Addressing Primary and Maternity Care Provider Shortages." This proposal was selected by the Statutory Committee and Department of Health after careful consideration of what efforts would produce the best mix of short-term results and long-term benefits. Some of the proposals help build the planning and recruitment system, while others are in the nature of pilot projects.

The foundation of the planning process is having adequate information and analytic capability to fully identify the supply and demand of, distribution and need for, health personnel. The Department of Health is moving forward rapidly to build a more comprehensive data base than was available for this year's planning effort. Without the analytic capabilities and data linkages proposed in the Department's budget request, the planning process will not be able to realize its full potential for the 1993 - 95 Plan.

The grants proposed in the Department's budget request reflect the belief that the Area Health Education Centers play a vital role in health personnel supply and distribution efforts. The remainder of the grants are a mix of broad efforts to increase the general supply of personnel through expansion of health career information and general recruitment campaigns. They also target efforts to train more physician assistants and tap into the potential pool of practitioners who may be interested in relocating to rural or urban underserved areas. The Medex NW and start-up subsidies are recommended at a level sufficient to test the potential.

The proposal to increase staffing for the Department of Health's Recruitment and Retention Clearinghouse reflects the very broad mandate given by the legislature and by the Plan. The

Clearinghouse was not fully funded by the 1991 legislation which established it. The Plan proposes that the Clearinghouse reach its full potential for providing technical assistance and coordination.

Other than the regulations adopted by regulatory agencies themselves, the greatest potential for increasing barriers to practice of a profession lies with legislation proposed to increase the requirements for obtaining or maintaining a license, certification or registration. The sunrise process has been shown to be a very effective tool in making sure that regulation is permitted only where necessary. The sunrise review process is an important step in controlling the expansion of regulation.

The Statutory Committee believes strongly that enhancing the use of the existing supply of health personnel is a major strategy in addressing shortages. The Health Professional Loan Repayment and Scholarship Program is a priority because it is such an effective tool for affecting the geographic distribution of health professionals. In addition, many populations are not receiving services because health personnel are not trained to work effectively with patients from different cultural, ethnic and racial backgrounds. The proposal to provide project funding for the Department to develop and promote programs to enhance the cultural consistency of health personnel will increase the supply of providers for target populations.

1993 - 95 PLAN PRIORITIES AND FISCAL REQUIREMENTS

The Plan gives priority to agency and institutional activities which increase the access of rural, urban underserved, and minority target populations to health care providers. Specifically, health provider development and access activities in the areas of database development, community recruitment and retention programs, target population recruitment efforts, and sunrise and regulatory impact should continue to be financially supported. These activities serve as the base on which the Plan is built. If no additional funding is provided for these activities, agencies and institutions should continue their current basic level of activity in these areas. This is the first level priority area of the 1993 - 95 Plan.

Building on this base, the Statutory Committee supports a DOH priority enhancement package of $1,621,736. (see below) and a HECB priority enhancement package of $1,118,000. (see below) for the the 1993 - 95 Plan. These DOH enhancements are specifically for database operation and linkage development, rural and urban underserved primary care provider recruitment and retention programs, recruitment and retention grants, regulatory and policy development activity, and an expanded sunrise and regulatory impact function. The Higher Education Coordinating Board requests funding as outlined below. This is the second level priority area of the Plan.

Those items not included in this package are still essential to the development of the Plan. Given the resources available for plan activity development and operation during 1993 - 95, they have been put forward for implementation in the next biennium. These extended implementation activities will comprise the third level of activity anticipated for Plan development, after the basic activity continuation and the enhancement package activities. These third levels activities will begin to be implemented in the 1995 - 97 Plan.

The following are the fiscal requirements from DOH for the implementation of the 1993 - 95 Plan, as determined by the Statutory Committee.

POLICY	BIENNIAL DOLLARS	FTEs FY 94/FY 95
1. ASSESSMENT	$261,350.	2.0 / 1.5

Implementation of Plan Recommendation (1), Assessment of Health Personnel Supply Requirements. Continue database operation and development, expand database to include all regulated and select non-regulated professions, provide data analysis, develop and refine plan criteria and definitions, provide technical assistance to communities for shortage designations.

2. GRANTS TO SUPPORT RECRUITMENT AND RETENTION ACTIVITIES	$929,250.	0 / 0

Implementation of Plan Recommendation (2), Cooperation Between the State and Federal Governments, and with other Organizations and Entities. Maintain and expand AHEC activities.

Implementation of Plan Recommendation (3), Primary and Maternity Care Services Delivery by a Mix of Health Personnel Providers. Develop primary and maternity care recruitment program, expand physician assistant training at MEDEX Northwest.

Implementation of Plan Recommendation (4), Community Efforts in Developing Adequate Health Personnel Supply. Develop recruitment and retention information for communities.

Implementation of Plan Recommendations (6), Assuring a Financial Base for Health Services. Provide funding for practice start-up subsidies for providers.

Implementation of Plan Recommendation (7), Joint Strategies for Recruitment and Retention. Development and distribution of health career information.

3. RECRUITMENT AND RETENTION EFFORTS	$310,276.	2.0/2.0

Implementation of DoH support for activities indicated under Plan Recommendation (4), Community Efforts in Developing Adequate Health Personnel Supply, Recommendation (5), Recruitment Efforts to Respond to Target Population Needs, Recommendation (6), Assuring a Financial Base for Health Services, and Recommendation (7), Joint Strategies for Recruitment and Retention.

4. MINIMIZE REGULATORY IMPACT $72,450 0.5/0.5

Implementation of Plan Recommendation (8), Reimbursement and Regulatory Impact on Recruitment and Retention. Expansion of the Sunrise Review Act (RCW 18.120) and provision of regulatory ombudsman assistance.

5. CULTURAL COMPETENCY OF HEALTH PERSONNEL $48,410. 0.5/0.0

Implementation of Plan Recommendation (5), Recruitment Efforts to Respond to Target Population Needs. Identify, develop, and promote programs to assure culturally and linguistically competent health providers for target populations and areas.

Total DOH Request: $1,621,736. 5.0/4.0

The following funding priorities are being requested by the Higher Education Coordinating Board, with the support of the Statutory Committee, as basic requirements to continue and expand the educational activities identified in the Plan. The HECB's agency priorities include expansion of the conditional scholarship and loan repayment program and continuation of its statutory responsibilities for health personnel planning. Public higher education institutions will present their priorities this biennium by means of their biennial institutional budget requests. The HECB will consider and make recommendations on the institutional budget requests within the context of the overall and specific needs of higher education and the state.

6. GEOGRAPHIC DISTRIBUTION OF HEALTH PROVIDERS $908,000. 0.0/0.0

Implementation of Plan Recommendation (19.1), Expansion of Health Professional Loan Repayment and Scholarship Program, the most important tool the state has for affecting geographic distribution of health professionals.

7. EDUCATIONAL DATA COLLECTION AND ANALYSIS $210,000. 2.0/2.0

Implementation of Plan Recommendation (1), Continued development and analysis of database, policy, and educational priorities and plans.

Total HECB Request: $1,118,000. 2.0/2.0

The funding priorities requested by the State Board of Community and Technical Colleges will be included in their biennial budget request.

TOTAL 1993 - 95 PLAN REQUESTS: $2,739,736. 7.0/6.0

The activities listed above were determined by the Statutory Committee to be the base fiscal requirements for 1993 - 95 Plan implementation.

APPENDICES

APPENDICES

Appendix A

1. Discussion of 1992 Education Inventory
2. Education Survey Response Rates
3. Education Survey Instrument
4. List of Tables
    a. tables

Appendix B

1. 1991 Washington Health Professions Surveys
2. Data
    a. 1991 estimated population per profession by county
    b. 1991 population by county for MW, PA, ARNP, ND, DO, MD
    c. 1991 provider FTE by county
    d. 1991 provider to population ratio

Appendix C

1. Statutory Committee
2. Community Committee
3. Education Committee

Appendix A

Discussion of 1992 Education Inventory

The inventory of health professions educational programs and students mandated by HB 1960, is part of a larger effort to determine the supply and distribution of health professionals in Washington State. Health policy makers have traditionally viewed education as an important vehicle for altering the supply and distribution of health professionals. The output of the schools, along with retirements and in- and out-migration of health professionals, provides a measure of net changes in the state's supply. In order to get a handle on in-state production of health professionals, an inventory of programs and students is necessary.

In discussing the inventory, five topics will be covered: (1) a description of the professions and educational programs included, (2) data elements (3) methodology and data collection activities, (4) data analysis, and (5) results.

A Description of the Professions and Educational Programs Included

Consistent with the decision to look at only primary and maternal care health professionals during the first phase of the Health Personnel Resource Plan, the educational inventory includes the following types of health professionals: allopathic physicians, osteopathic physicians, naturopathic doctors, licensed practical nurses, registered nurses, advanced registered nurse practitioners, licensed midwives, and physician assistants. Strictly speaking, since most licensed practical nurses and registered nurses work in institutional settings--that is, hospitals or nursing homes-they are usually not categorized as primary or maternal care health professionals. They were included because they constitute the largest health profession in the state. It should also be noted that certifed nurse midwives are included in the category, advanced registered nurse practitioner.

The educational inventory diverged somewhat from the health professions survey in including master's degree nurses and nursing assistants. Because advanced registered nurse practitioners will be required in 1995 to have a master's degree, it was important to look at the state's production of master's prepared nurses. The nursing articulation issue determined the inclusion of nursing assistants.

Because the focus of this inventory was educational programs rather than professsions, a distinction was made within the registered nurse category between associate degree nurses, baccalaureate degree nurses, and registered nurse baccalaureates. Associate degree nurses are the product of two year nursing programs in community colleges, whereas baccalaureate degree nurses graduate from 4-year programs in a university or college setting. In addition, for the associate degree nurses who wish to obtain a baccalaureate, there are registered nurse baccalaureate programs of one to three years in duration.

A distinction was also made between medical education and residency training. Because of the policy focus on primary and maternal health care, only residency training programs in family practice, internal medicine, pediatrics, and obstetrics-gynecology were included in the inventory. This represents another point of divergence between the educational survey and the health professions survey, since the latter encompassed all medical specialty areas.

Data Elements:

The legislation asked that five data elements be included in the inventory: applications, admissions, numbers on waiting list, enrollments, and certificates/degrees awarded. Each of these variables has policy relevance. Data on applications provides an indicator of the demand for health professions training in the state. For example, applications to Associate Degree Nursing (ADN) programs have been soaring. Admissions data indicates how the educational system is able to respond to student demand. It is important to know whether, for any given program, the number of students applying to a program is far more than the number admitted. For programs in which they exist, waiting list data provide a measure of unmet demand. Students on the waiting list are eligible for admission, but cannot be enrolled because of space or other limitations. Data on enrollments and graduates yield estimates of the educational contribution to the supply of health professionals. Enrollments indicate the number of students in the pipeline; they are potential graduates.

So that trends could be detected in the data, a five-year time frame was chosen. Applications, admissions, enrollments, and degrees/certificates awarded were requested for the years 1987-88, 1988-89, 1989-90, 1990-91, and 1991-92.

Because of their bearing on issues raised in the legislation, other data elements were added. They formed three categories: (1) student characteristics, including ethnicity and gender, average age, place of origin, and social security numbers. (2) financial aid, and (3) institutional capacity.

Data on ethnicity and gender provided a measurement of diversity in the health professions student population. Programs were asked for ethnicity and gender distributions for applications, admissions and enrollments for the 1987-1992 period. Numbers of students applying for and receiving financial aid was intended to indicate how many were financially disadvantaged. Financial aid data could also be used as a vehicle for finding out which students were married and had children as an indicator of numbers of non-traditional students. Obviously, however, this information could be obtained only for those students applying for financial aid.

A question on place of origin was asked to isolate those students from rural areas. Social security numbers were needed to get an estimate of the true application rate to institutions. Because students often apply to more than one institution, they may be counted several times.

A series of questions was added on institutional capacity to get at the distinction between the volume of students moving through the system and the system's capacity to respond to increases in student volume. Of particular interest was any excess capacity and what an institution required in order to utilize such capacity.

Methodology and Data Collection Activities:

With the help of an advisory group at the Higher Education Coordinating Board, a survey instrument was developed. (See Appendix A, Pages 24-34.) A baccalaureate nursing program at a private university was used to test the survey. After revisions were made, the survey instrument was mailed to the institutions listed on Page 23 (Appendix A). The California Osteopathic Medical School of the Pacific (COMP) was included because most state residents seeking an ostepathic medical education go there. Because social security numbers were being requested, permission to survey the community colleges had to be obtained from the Community College Board Research Committee. Data on enrollments, certificates/degrees awarded, and enrollments by ethnicity were extracted from the Community College Board database.

The response rates after extensive follow-up were: nursing assistant programs (50%), licensed practical nursing programs (60%), associate degree nursing programs (70%), 4-year baccalaureate nursing programs (71.4%), RN-baccalaureate programs (81.8%), master's degree nursing (66.7%) licensed midwifery programs (100%), "single" programs (medical school, Bastyr College, COMP, and Medex) (100%), primary care residency programs (other than family practice) (100%), military residency programs (80%), and family practice residency programs (excluding military) (100%).

Not all programs could provide all the data requested. No programs reported data on place of origin. Either they did not keep the data or the data did not provide the information sought. For example, although the medical school asks incoming students their place of residence, it was almost invariably the location of their undegraduate institution. Very few programs were able to provide social security numbers and financial aid data. Because of admissions policies, some community colleges did not have data on applications. Very few programs had data on applications by ethnicity. Many programs did not have data on admissions by ethnicity.

Some of the data were not usable. The problem of nonusable data was kept to a minimum by a policy of doing data quality checks on incoming surveys. When numbers did not add up or some other data flaw was detected, the program was contacted. Sometimes, however, the problem could not be resolved.

Analysis:

Single programs were analyzed individually; the others were grouped in the following manner: (1) licensed practical nursing programs, (2) associate degree nursing programs, (3) basic baccalaureate nursing programs, (4) registered nurse baccalaureate programs, (5) combined baccalaureate programs, (6) master's degree nursing programs, (7) licensed midwifery programs, (8) family practice residency training programs, (9) other primary care residency programs, and (10) military residency programs.

There were overlaps between groups. The associate degree nursing programs include those licensed practical nursing programs that are the first year of a two year associate degree program. The master's degree nursing programs include advanced practice nurse practitioner programs. The military family practice programs are in the category, military residency programs, rather than family practice residency programs. Category 5 in the analytical groups--combined baccalaureate programs--represents a combination of the basic baccalaureate and registered nurse baccalaureate progams. This category was created because certain nursing schools did not keep separate data on ethnicity and gender for the two types of baccalaureate program.

For any given item of information, the number of programs reporting might vary. For example, in the case of RN-baccalaureate programs, the number of programs reporting enrollments by ethnicity shifted from 4 in 1990-91 to 3 in 1991-92. Averages therefore had to be calculated for each information cell. Percentages were used to look at changes in the ethnic composition of a program over a five-year period (1987-1992).

In the case of the California Osteopathic Medical College of the Pacific, there were problems in data interpretation. Because of a relatively low response rate, the decision was made not to analyze the nursing assistant programs at this time.

The following operations were performed with the data for 1987-1992: Averages for applications, admissions, enrollments, and degrees/certificates were calculated for basic baccalaureate programs, master's degree nursing programs, family practice residency programs, other primary care residency programs, and military residency programs. Averages for applications and admissions were calculated for associate degree nursing programs. Averages for admissions by ethnicity were calculated for licensed practical nursing programs, associate degree nursing programs, registered nurse baccalaureate programs, basic baccalaureate nursing programs, master's degree nursing programs, family practice residency programs, other primary care residency programs, and military residency programs. Averages for enrollments by ethnicity were calculated for registered nurse baccalaureate programs, basic baccalaureate nursing programs, combined registered nurse and basic baccalaureate programs, master's degree nursing programs, family practice residency programs, and other primary care residency programs.

In addition, percentages for applications by ethnicity were generated for the undergraduate medical school program and the physician assistants (Medex) program. Percentages for admissions by ethnicity were calculated for the medical degree program, the naturopathic medical degree program, the physician assistants (Medex) program, master's degree nursing programs, family practice residency programs, other primary care residency programs, and military residency programs. Percentages for enrollments by ethnicity were calculated for the naturopathic medical degree program, the physician assistants program, associate degree nursing programs, registered nurse baccalaureate programs, basic baccalaureate nursing programs, combined registered nurse and basic baccalaureate programs, master's degree nursing programs, family practice residency programs, and other primary care residency programs for 1987-1992.

Data on applications, admissions, enrollments, and certificates awarded were combined for the Bastyr College Midwifery Program and the Seattle Midwifery School.

An analysis comparing applications to admissions was performed for the medical degree program and for the physician assistants program.

EDUCATIONAL INVENTORY RESULTS

Despite the missing data and the response rate, it is possible to make certain statements about health professions training in the state based on inventory results. In discussing the findings the basic organization of the data collection form will be followed. The thematic areas are four: (1) application rates, admissions rates, and waiting lists, (2) enrollments and graduates, (3) ethnicity and gender, and (4) institutional capacity.

Applications, Admissions, and Waiting Lists:

There has been considerable demand for health professions training. Admission rates, however, have remained the same, or even declined, in the face of increasing applications.

Medical school applications have risen from 1330 in 1988-89 to 2341 in 1991-92, while admissions remained constant at 165. The Dean's office reports that there were over 2800 applicants for 1992-93. The application rates for the pediatrics and obstetrics-gynecology residency training programs at the University of Washington have also been rising. In 1987-88 pediatrics received 278 applications for 18 positions; in 1991-92, 369 applications for 20 positions. For obstetrics-gynecology the comparable numbers were 278 applications for five positions and 348 applications for six positions.

There has been no clear trend upward or downward in the application rate for the family practice affiliated programs or the University of Washington internal medicine programs (See Tables Ed-4 and Ed-5). However, like the obstetrics-gynecology and pediatrics residency programs, the ratio of applications-to-admissions has been high. For the traditional internal medicine program it was 611-to-28 in 1991-92; for several programs in the Family Practice Network, the ratio was greater than 200-to-6. Since medical graduates can apply to more than one family practice program, these numbers undoubtedly reflect some duplication.

The application rates for the associate degree nursing programs have varied, depending for the most part on the geographic location of the program. Applications rates have been increasing for the programs in Spokane and the I-5 corridor. The two most dramatic examples are Everett--which went from 107 applications in 1987-88 to 417 in 1991-92--and Shoreline, which in the same time period, went from 204 to 527 applications. Since, however, students in the metropolitan areas often apply to more than one program, these rates may reflect considerable duplication. Although less dramatic for the basic baccalaureate programs, there is a trend of increasing applications, especially for the years 1989-92. Again, however, there is the problem of duplication in the applications.

A growing discrepancy between admissions and applications has created several pressure points in the system of associate degree nursing programs. At Bellevue, applications rose from 136 in 1990-91 to 175 in 1991-92, while admissions remained constant at 50. During the same period, applications rose from 347 to 417 at Everett, while admissions declined from 74 to 60. Shoreline in that time frame went from 390 to 527 applications, and 118 to 103 admissions. In 1991-92, Skagit Valley had 450 applications for 33 positions; it had two fewer positions from the previous year even though applications rose by 112.

In contrast to the associate degree programs, basic baccalaureate programs were able to make some accommodation to the inceasing demand. Pacific Lutheran University, for example, increased its number of slots from 57 in 1989-90 to 78 in 1990-91 when its applications rose from 80 to 135. During the same period, the Intercollegiate Center for Nursing Education (ICNE) was able to increase its admissions from 103 to 137 in response to an increase in applications of about 100.

An application rate that has increased from 90 in 1987-88 to 284 in 1991-92 indicates that the Medex program has become a popular career choice for the residents of Washington and the other states it serves. Although the Medex program has increased admissions as applications have increased, there has been no such admissions pattern for Washington applicants. About 27% of all admissions were Washington residents in 1988-89; this figure has fallen to 13% in 1991-92.

For the Bastyr College progam in naturopathic medicine, there was an increase in applications from 64 in 1987-88 to 88 in 1991-92. There was no trend, either up or down, for Seattle Midwifery School applications over the same period.

Bastyr College program in naturopathic medicine increased admissions from 36 in 1990-91 to 47 in 1991-92 when applications rose from 79 to 88; otherwise there has been no correlation between applications and admissions.

Waiting lists provide more evidence of unmet demand for health professions training in Washington State. Persons placed on waiting lists are eligible for admission but are not admitted due to lack of space or some other limitation. Only a few programs reported figures for eligible-but-not-admitted students. The waiting list for the Medex program increased from 69 in 1987-88 to 241 in 1991-92. During the same period, the waiting lists for the associate degree nursing programs grew as follows: Shoreline, from 54 to 338; Spokane, from 177 to 363; Everett, from 6 to 160; Skagit Valley, from 289 to 417, Bellevue, from 0 to 83, and Peninsula, from 2 to 18.

Enrollments and Graduates:

Because of missing data and the response rate, the enrollments data cannot be used to provide an estimate of the total number of students in the pipeline. Such an estimate would also be difficult to make because programs differ in length. It is, however, possible to get an idea of the contribution that health professions training makes to the supply of health professionals in the state. By looking at the number of graduates that training programs are producing, one can gauge the addition to supply that Washington graduates potentially represent. Not all graduates choose to remain in the state, however. Medical students who do their residency training in another state may remain in that state when they go into practice. A few graduates may decide not to practice in their field, but to use their education for other purposes. For example, a nursing graduate may decide to work for a malpractice attorney.

The medical school has turned out a yearly average of 163 medical graduates over the period 1987-92, with the range being from 147 to 184. The family practice affiliated network produced a increasing number of graduates--from 35 in 1987-88 to 49 in 1991-92--and the number of graduates per program increased--from 5.00 to 6.13. During that time, two new programs began operations. The other primary care residency training programs produced a yearly average of 73.6 graduates (1987-92); the number of graduates per program remained steady at about 10.5. In the time interval 1987-92, four of the five military programs for which data were obtained graduated 77 primary or maternal care physicians. Although military graduates are often assigned to bases in other parts of the country or world, they have shown a tendency to return to Washington to practice when they resume civilian life.

The five basic baccalaureate programs for which data were obtained had 1189 graduates from 1987-88 to 1991-92. Over that period the average number of graduates per program/year was 49.84. In the same time interval, six schools produced 581 master's degree graduates, with the University of Washington accounting for 87.78%.

From 1987-92, the Seattle Midwifery School and the Bastyr College midwifery program produced an average of 12.2 licensed midwives a year. For the same time interval, Bastyr College naturopathic medicine program turned out an average of 31.4 naturopathic doctors a year.

Ethnicity and Gender:

Programs were asked to report applications, admissions, and enrollments by ethnicity and gender.

In Washington state, while all Phase (1) health professions programs need to attract more minorities, they vary in their success rate. The naturopathic medical program, with an ethnic minority representation of around 25%, has been the most successful. It is followed closely the Medex program with a rate of about 20%. The medical school expects to have a significantly larger percentage of underrepresented minorities in its fall entering class than in the past (Charles Garcia, personal communication). Credit for this change should be given to the Minority Medical Education Program, funded by the Robert Wood Johnson Foundation, and to the health sciences minority affairs office.

Nursing, in part because it encompasses different levels of training and a variety of programs, presents a mixed picture. The Associate Degree program at Seattle Central is the leader by far, with a minority representation in 1991-1992 of 32%. The associate degree program with the next largest representation is Olympic with 20%. The other associate degree programs range from 0% to 18%, with the average being around 12%. However, the 12% includes 2.4% who are either of unknown or other ethnic origin and 5% who are Asian. Persons of Asian origin are not generally considered an underrepresented minority in the health professions. Furthermore, the figure is below that (18.7%) for overall minority representation in community colleges. One can form a more accurate estimate of (non-Asian) minority representation by looking at head counts. Of 2045 students enrolled in associate degree nursing programs in the academic year 1991-1992, 32 were African American (1.38%); 23, Native American (.99%); and 46, Hispanic (1.98%). In 1991, 3.1% of Washington's population was African American; 1.6%, Native American; and 4.7%, Hispanic.

While baccalaureate programs have a higher minority representation (e.g., 20% for 1991-92 enrollments), master's level and nurse practitioner programs are notably lacking minority students. For instance, in 1991-92, 92.7% of the students enrolled in master's level programs were white (See Table Ed-29). In order to be faculty in associate and baccalaureate degree programs, nurses must have a master's degree in nursing. The fact that very few minority students are becoming master's prepared nurses means that there will be a relative absence of faculty role models for minority students in the future. Currently, of 512 total faculty in Washington's nursing programs, 28 are minority (5.5%).

What explains the relatively low representation of minorities in nursing? Although the data are scanty, they indicate that minority students, with the exception of Asian students, may not be applying to nursing programs. At the University of Washington, minority students who do apply often have an equally good chance of being accepted as white applicants. It has been suggested that minority students are being encouraged by families and counselors to aim for careers in law and medicine rather than nursing.

Nursing's alleged image problem has been given as the reason why men have traditionally shunned nursing careers. However, the nursing shortage combined with a high unemployment rate in other fields has induced more men to consider becoming nurses. The fact that nursing is becoming more technology-intensive may also hold appeal for men. Whatever the reason, more men than in the past are applying for admission to baccalaureate programs. At two institutions--one public and the other private--applications rose by an average of 89.2% from 1989-90 to 1991-92. Male enrollments rose by an average of 89.6% at these same two schools from 1987-88 to 1991-92. Another public institution reached a new plateau in male enrollments--from around 30.5 in 1987-88 to an average of 38 in the years 1989-91.

All phase (1) health professions need to place greater emphasis on the recruitment of rural students. The Medex program may be the one exception. For some time it has made rural recruitment a priority.

Institutional Capacity:

Program directors were asked if they could expand enrollments within constraints of physical space, instructional funds, clinical facilities and resources, and administrative/support levels. Each constraint was posed as a separate question. For example, program directors were asked how many more students could they enroll per year within existing physical facilities. After this series of questions, program directors were asked if they would add more students if the above limitations were removed.

Given the increasing application rates for some programs, the growing gap between applications and admissions, and the increasing numbers of applicants on waiting lists, the answers were of considerable interest.

It should be noted that program directors interpreted projected enrollments differently. Some thought it meant total enrollments; others, yearly enrollments (or admissions). In giving their responses, the distinction between yearly and total is made clear.

The medical school indicated that it would continue to enroll 165 students each year for the foreseeable future (i.e., year 2000). Obstacles to expansion were instructional funds, clinical facilities and resources, and administrative and support levels. The medical school said that it would be willing to increase the enrollment by 10-15 students targeted for rural practice provided there were a "modest" increase in support.

The pediatrics residency program indicated that it would increase total enrollments from its current 59 to 64 in 1995 and 70 in 2000. If limitations were removed, it would "plan to add residents at about rate of increase during past 10 years": from 1992 to 1995 a total of 3 to 4 and from 1995 to 2000 a total of 4 to 5.

The obstetrics-gynecology and internal medicine programs were not in favor of expansion. Even with limitations removed, they would remain at current levels. The free-standing internal medicine progam at Virgina Mason Medical Center also vetoed further expansion. They indicated that, "Without dramatic increase in patient volume, addition of more residents would dilute the educational experience."

Of the three family practice programs that responding to the institutional capacity questions, none reported an increase in yearly enrollments of more than six by year 2000. The Spokane program mentioned "the practical limit of available patients for teaching purposes."

Most community college nursing directors acknowledged that enrollments could be expanded if certain limitations were removed and expressed a willingness to do so. However, not much expansion, was anticipated in the system. Programs experiencing large increases in applications had varying responses on the question of projected enrollments. By 1995 Spokane Community College planned to decrease annual enrollments from the current 120 to 100. In that same time interval, Skagit projected a small increase from 33 to 48, and Shoreline planned virtually no increase. Shoreline mentioned a possible shortage of jobs for graduates as being the reason it contemplated no expansion. Bellevue said it would stay at its current level of 50 indefinitely; as its reason for not expanding, it also mentioned the possibility of flooding the market with new graduates. Tacoma was not sure what its future enrollment would be although it was willing to expand by 30 positions if all limitations were removed.
Of the four baccalaureate programs responding to the institutional questions, three were in independent schools. Two of them planned sizeable increases in enrollments; the third would increase enrollments by an unspecified number if limitations were removed. ICNE, the only public institution responding, indicated that the registered nurse baccalaureate program could be reactivated in Yakima if WHETS were extended to the community.

In response to the question about projected enrollments, the Medex program said that it would stay at the current level of about 42 through year 2000 unless more funding were made available. If the limitations of physical space, clinical resources, and administrative support were removed, an increase of 30 students would be possible. The director noted that they were in development phase of satellite training programs in Eastern Washington and at the University of Washington's Tacoma Branch campus.

SURVEY RESPONSE RATES FOR THE HEALTH PERSONNEL RESOURCE PLAN

NURSING

1. Nursing Assistants/Technical and Community Colleges
50.00% response rate
20 surveys were mailed and 10 schools responded.

2. Licensed Practical Nursing/Technical and Community Colleges
60.00% response rate
20 surveys were mailed and 12 schools responded.

3. Associate Degree Nursing/ Community Colleges
70.00% response rate
20 surveys were mailed and 14 schools responded.

4. 4-Year Baccalaureate Nursing Programs
85.71% response rate
7 surveys mailed and 6 responded

5. RN-Baccalaureate Nursing Programs
75.00% response rate
12 surveys mailed and 9 schools responded.

6. Nursing Masters
66.67% response rate
6 surveys mailed and 4 schools (representing 11 programs) responded.

SINGLE PROGRAMS (Medical School, Osteopathic Medical School, Naturopathic Medical School, and Medex)

100.00% response rate
4 surveys mailed and 4 responded.

PRIMARY CARE RESIDENCY PROGRAMS (OTHER THAN FAMILY PRACTICE)

100.00% response rate
7 surveys mailed and 7 programs responded.

MILITARY RESIDENCY PROGRAMS

80.00% response rate
5 surveys mailed and 4 programs responded.

FAMILY PRACTICE RESIDENCY PROGRAMS

100.00% response rate
9 surveys mailed and 9 responded.

LICENSED MIDWIFERY PROGRAMS

100.00% response rate
2 surveys mailed and 2 responded.

30-Aug-92